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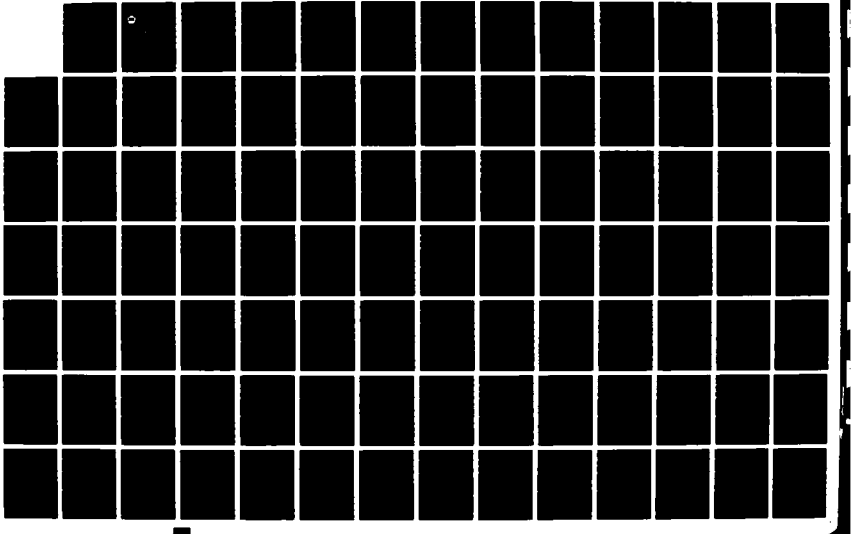

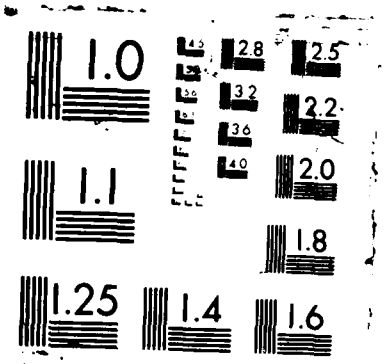
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No. 72

JULY - AUGUST 1984

Date of Report

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Vice Director for Foreign Intelligence
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20. ABSTRACT

This is the Soviet Laser Bibliography for July-August 1984, and is No. 72 in a continuing series on Soviet laser developments. The coverage includes basic research on solid state, liquid, gas, and chemical lasers; components; nonlinear optics; spectroscopy of laser materials; ultrashort pulse generation; theoretical aspects of advanced lasers; and general laser theory. Laser applications are listed under biological effects; communications; beam propagation; adaptive optics; computer technology; holography; laser-induced chemical reactions; measurement of laser parameters; laser measurement applications; laser-excited optical effects; laser spectroscopy; beam-target interaction; and plasma generation and diagnostics.

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INTRODUCTION

This bibliography has been compiled under an interagency agreement as a continuing effort to document current Soviet-bloc developments in the quantum electronics field. The period covered is July-August 1984, and includes all significant laser-related articles received by us in that interval. The bulk of the entries come from the approximately 30 periodicals which are known to publish the most significant findings in Soviet laser technology. Citations from the Soviet Reference Journals are also included. Laser items from the popular or semipopular press are generally omitted. All sources cited with no parenthetical notation are available at the Library of Congress. A parenthetical entry indicates the secondary source in which the citation was found as a bibliographic entry or abstract, but for which the original source is not currently available at the Library.

We are now producing the entire bibliography on computer. To make our bibliography compatible with other data bases, we have converted the source abbreviations from our previous practice of those used in the Soviet Union to the letter codens generally used in our own government. Likewise, we have converted the affiliations designations from numbers to letter codens. The authors' affiliations are indicated in parentheses after the authors' names in the text. Empty parentheses indicate the affiliation was not given. A source abbreviations list, authors' affiliations list, and author index are included in the back of the bibliography.

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I. BASIC RESEARCH

A. SOLID STATE LASERS

1. Crystal

a. Miscellaneous

1. Aseyev, G.I.; Medvedev, B.A.; Silkina, T.G. (). Lasers using color centers in alkali halide crystals. Issledovaniya po nelineynoy optike i spektroskopii: spektroskopiya molekul, primesnykh tsentrov i lazernykh sred. SGU. Saratov, 1983, 98-108. (RZFZA, 84/8L861).

2. Ashurov, M.Kh.; Zharikov, Ye.V.; Laptev, V.V.; Nasyrov, I.N.; Osiko, V.V.; Prokhorov, A.M.; Khabibullayev, P.K.; Shcherbakov, I.A. (IOF; IYaFANUz). Effect of chromium and neodymium ions on the formation of color centers in gadolinium-scandium-gallium garnet crystals. IANFA, no. 7, 1984, 1343-1345.

3. Babin, A.A.; Belyayeva, N.N.; Belyayev, Yu.N.; Bredikhin, V.I.; Karov, A.V.; Petryakov, V.N.; Fel'dshteyn, F.I.; Freydman, G.I. (IPF). High-power tunable IR sources based on parametric generators and Raman and parametric converters. IANFA, no. 8, 1984, 1511-1521.

4. Bayev, V.M.; Velichanskiy, V.L.; Zibrov, A.S.; Kireyev, A.N.; Nikitin, V.V.; Protsenko, Ye.D.; Rogozhin, A.A.; Sautenkov, V.A. (FIAN). C-w color center laser tunable over the 2.5 - 2.75 um range. KRSFA, no. 8, 1984, 52-55.

5. Dobrovol'skiy, A.V.; Dorkin, A.S.; Zhitkova, M.B.; Kuratev, I.I.; Lipatov, V.A.; Narkhova, G.I.; Nikitin, M.Yu.; Pashkov, V.A.; Ustimenko, N.S.; Shvom, Ye.M.; Shestakov, A.V. (). Pulsed high-efficiency gadolinium-strontium-gallium garnet laser. IANFA, no. 7, 1984, 1349-1350.

6. Isyanova, Ye.D.; Levit, A.L.; Lobanov, B.D.; Maksimova, N.T.; Ovchinnikov, V.M.; Pirogov, Yu.A.; Provorov, A.M.; Simin, B.A.; Tsirul'nik, P.A. (). New developments in solid state lasers. IANFA, no. 8, 1984, 1557-1563.

7. Kuratev, I.I. (). Solid state lasers with semiconductor pumping. IANFA, no. 8, 1984, 1564-1572.

8. Mak, A.A.; Fromzel', V.A.; Shcherbakov, A.A. (). State-of-the-art and prospects for increased efficiencies in solid state lasers. IANFA, no. 8, 1984, 1466-1476.

9. Matrosov, V.N.; Pestryakov, Ye.V.; Razvalyayev, V.N.; Trunov, V.I. (). Tunable radiation source based on an alexandrite laser. CRNTShSL. Materialy. Minsk, 1983, 84-86. (RZFZA, 84/7L1143).

10. Zharikov, Ye.V.; Il'ichev, N.N.; Kalitin, S.P.; Laptev, V.V.; Malyutin, A.A.; Osiko, V.V.; Ostroumov, V.G.; Pashinin, P.P.; Prokhorov, A.M.; Smirnov, V.A.; Umyskov, A.F.; Shcherbakov, I.A. (IOF). Color centers and absorption by excited states of Cr3+ in gadolinium-strontium-gallium garnet crystals. IANFA, no. 7, 1984, 1354-1358.

11. Zharikov, Ye.V.; Osiko, V.V.; Prokhorov, A.M.; Shcherbakov, I.A. (IOF). Rare earth gallium garnet crystals with chromium as an active medium in solid state lasers. IANFA, no. 7, 1984, 1330-1342.

12. Zharikov, Ye.V.; Zhitnyuk, V.A.; Kuratev, I.I.; Laptev, V.V.; Smirnov, V.A.; Shestakov, A.V.; Shcherbakov, I.A. (IOF). Room temperature gadolinium-strontium-gallium garnet: Cr3+, Nd3+ laser operating on the (sup4)F(sub3/2) -> (sup4)I(sub9/2) transition. IANFA, no. 7, 1984, 1346-1348.

13. Zharikov, Ye.V.; Laptev, V.V.; Ostroumov, V.G.; Privis, Yu.S.; Smirnov, V.A.; Shcherbakov, I.A. (IOF). Investigation of a new active laser medium, a gadolinium-scandium-gallium garnet activated by chromium and neodymium. KVEKA, no. 8, 1984, 1565-1574.

b. Ruby

14. Lebedev, V.I.; Petrovich, I.P.; Yasen', A.I. (). Lasers with a high single-pulse repetition rate. CRNTShSL. Materialy. Minsk, 1983, 75-77. (RZFZA, 84/8L857).

c. LiF

15. Asayenok, N.A.; Kostenich, Yu.V.; Rubinov, A.N.; Khulugurov, V.M.; Chepurnoy, V.A.; Shkadarevich, A.P.; Efendiyev, T.Sh. (). Use of crystals with color centers in distributed feedback lasers. CRNTShSL. Materialy. Minsk, 1983, 27-29. (RZRAB, 84/7Ye90).

16. Govorkov, S.V.; Kamalov, V.F.; Koroteyev, N.I. (). Quasi-c-w tunable laser using an LiF crystal with F2 color centers. CRNTShSL. Materialy. Minsk, 1983, 30-31. (RZRAB, 84/7Ye76).

17. Karpushko, F.V.; Morozov, V.P.; Sinitsyn, G.V. (IFANB). Amplification and lasing in LiF crystals with F2 negative-ion color centers at room temperature and under flashlamp excitation. IFANB. Preprint, no. 316, 1983, 14 p. (RZFZA, 84/8L863).

18. Karpushko, F.V.; Morozov, V.P.; Sinitsyn, G.V. (IFANB). Lasing characteristics of a flashlamp pumped LiF:F(sup-)(sub2) crystal laser. IANFA, no. 7, 1984, 1370-1372.

19. Medvedev, B.A.; Parshkov, O.M.; Silkina, T.G.; Simonenko, G.V. (). Processes of amplification and generation of light in alkali-halide crystals with electron color centers. OPSPA, v. 56, no. 3, 1984, 478-483. (RZFZA, 84/7L1056).

2. Rare Earth

a. Miscellaneous

20. Avsiyevich, T.A.; Verenik, V.N.; Gladchenko, L.F.; Puko, R.A.; Shkadarevich, A.P.; Yarzhemkovskiy, V.D. (). Effect of energy transfer processes on the lasing efficiency in KY(WO4)2:Ho3+, Er3+, Tu3+ crystals. CRNTShSL. Materialy. Minsk, 1983, 103-105. (RZFZA, 84/8L450).

21. Petrov, M.V. (). Periodic pulsed YLF-Er, Pr laser at 0.8503 um. CRNTShSL. Materialy. Minsk, 1983, 99-102. (RZFZA, 84/8L869).

b. Nd3+

22. Dianov, Ye.M.; Zabelin, A.M.; Isayev, S.K.; Korniyenko, I.S. (NIIYaFT; MGU; IOF). A ring garnet laser with a lightguide resonator. KVEKA, no. 8, 1984, 1509-1511.

23. Golovin, A.D.; Lakhno, P.R.; Petrov, V.A.; Sozinov, B.L.; Churakov, V.P. (). Subnanosecond pulse generation in a YAG:Nd3+ laser with a LiF(F2 negative ion) passive switch. CRNTShSL. Materialy. Minsk, 1983, 69-71. (RZFZA, 84/8L859).

24. Grafenshteyn, S.G.; Ivanov, N.A.; Inshakov, D.V.; Parfianovich, I.A.; Fomichev, A.A.; Chepurnoy, V.A.; Yakshin, M.A. (). Lasing characteristics of a YAG:Nd3+ laser with a passive Q-switch based on LiF with anion F2 color centers. PZTFD, no. 14, 1984, 847-850.

25. Kapralova, O.N.; Kaptsov, L.N. (MGU). The emission spectrum of a YAG:Nd3+ laser with a non-steady-state resonator. KVEKA, no. 8, 1984, 1674-1676.

26. Khandokhin, P.A.; Khanin, Ya.I. (IPF). The autostochastic regime of lasing of a solid-state ring laser with a low-frequency periodic loss modulation. KVEKA, no. 7, 1984, 1483-1487.

27. Zharikov, Ye.V.; Kuratev, I.I.; Laptev, V.V.; Nasel'skiy, S.P.; Ryabov, A.I.; Toropkin, G.N.; Shestakov, A.V.; Shcherbakov, I.A. (IOF). Effect of UV and gamma radiation on the lasing characteristics of neodymium lasers. IANFA, no. 7, 1984, 1351-1353.

c. Er3+

28. Lobachev, V.A. (IOF). Cross-relaxational YAG:Er3+ laser IOF. Dissertation, 1984, 19 p.

29. Yershova, L.M.; Zharikov, Ye.V.; Kitayeva, V.F.; Osiko, V.V.; Rustamov, I.R.; Sobolev, N.N. (FIAN). Elastic and photoelastic properties of gadolinium-scandium-gallium garnet doped with erbium. KRSFA, no. 7, 1984, 48-51.

d. Ho3+

e. Tm3+

3. Semiconductor

a. Theory

30. Akul'shin, A.M.; Velichanskiy, V.L.; Zibrov, A.S.; Nikitin, V.V.; Sautenkov, V.A.; Yurkin, Ye.K. (). Tunable injection lasers based on wideband semiconductors. CRNTShSL. Materialy. Minsk, 1983, 44-53. (RZFZA, 84/7L1061).

31. Aleksanyan, A.G.; Boyakhchyan, G.P.; Mirzabekyan, E.G. (IRFEANArm). Submillimeter semiconductor laser with distributed feedback. IAAFA, no. 4, 1984, 198-205.

32. Andronov, A.A.; Zverev, I.V.; Kozlov, V.A.; Nozdrin, Yu.N.; Pavlov, S.A.; Shastin, V.N. (IPF). Stimulated emission in the longwave IR at hot holes of Ge in crossed electric and magnetic fields. ZFPRA, v. 40, no. 2, 1984, 69-71.

33. Dubrov, V.D.; Ismailov, I.; Obidin, A.Z.; Pechenov, A.N.; Popov, Yu.M.; Frolov, V.A. (FIAN). Gunn domains in an electric discharge channel and their excitation by laser radiation. KRSFA, no. 7, 1984, 3-6.

34. Yegorov, V.D.; Mueller, G.O.; Weber, H.H.; Jacobson, M.A.; Dite, A.F. (). Control of carrier concentration by stimulated emission in highly excited direct-gap semiconductors. PSSBB, v. B122, no. 1, 1984, 183-192. (RZFZA, 84/8N354).

35. Yelesin, V.F. (MIFI). The effect of impurities on the absorption in semiconductors and the lasing of semiconductor lasers. ZETFA, vol. 87, no. 1, 1984, 135-142.

b. Miscellaneous Homojunction

c. Miscellaneous Heterojunction

36. Aarik, Ya.; Bergmann, Ya.; Virro, A.; Lyuk, P.; Rozental', A.; Sammelsel'g, V.; Fridental, Ya. (). C-w lasing in AlGaAsSb/GaSb heterolasers at room temperature. ETFMB, no. 1, 1984, 128-130. (RZFZA, 84/7L1073).

37. Aarik, Ya.; Virro, A.; Gerst, A.; Lyuk, P.; Niylisk, A.; Rozental', A.; Sammelsel'g, V.; Fridental, Ya. (). Discontinuous tuning of AlGaAsSb/GaSb and AlGaSb/GaSb injection lasers by means of temperature and pressure. ETFMB, no. 1, 1984, 35-43. (RZFZA, 84/7L1074).

38. Al'ferov, Zh.I.; Gatsoyev, K.A.; Gorelenok, A.T.; Il'inskaya, N.D.; Tarasov, I.S. (FTI). Low-threshold c-w mesastripe InGaAsP/InP lasers. (wavelength ~ 1.3 um). PZTFD, no. 16, 1984, 961-964.

39. Davarashvili, O.I.; Krialashvili, I.V.; Khartishvili, I.K.; Chikovani, R.I.; Shotov, A.P. (). Critical thickness of epitaxial layers of Pb(1-x)Sn(x)-Te(y)Se(1-y) grown on PbSe and Pb(0.75)Sn(0.25)Te substrates. SAKNA, vol. 116, no. 2, 1984, 293-296.

40. Gorelenok, A.T.; Gruzdov, V.G.; Yevstropov, V.V.; Sidorov, V.G.; Tarasov, I.S.; Fedorov, L.M. (FTI). Effect of discrepancies in lattice parameters on the V-A characteristics of InGaAsP/P p-n heterostructures. FTPPA, no. 8, 1984, 1413-1416.

41. Ivanov-Omskiy, V.I.; Kurbanov, K.R.; Rustamov, R.B.; Smirnov, V.A.; Yuldashev, Sh.U. (FTI). Spontaneous and stimulated emission of bound excitons in Cd(x)Hg(1-x)Te. FTPPA, no. 8, 1984, 1509-1511.

42. Ivanov-Omskiy, V.I.; Mironov, K.Ye.; Rustamov, R.B.; Smirnov, V.A. (FTI). Stimulated emission from epitaxial layers of Cd(x)Hg(1-x)Te. PZTFD, no. 16, 1984, 1021-1023.

43. Nakwaski, W. (). Thermal properties of stripe-geometry laser diodes. OPAPB, no. 3, 1983, 291-294. (RZRAB, 84/7Yel25).

44. Yeliseyev, P.G.; Sverdlov, B.N.; Shokhudzhayev, N. (FIAN). A reduction of the threshold current of InGaAsP/InP-based heterostructure lasers under unidirectional compression. KVEKA, no. 8, 1984, 1665-1667.

d. GaAs

e. CdS

f. ZnSe

g. Pb(1-x)Sn(x)Te

4. Glass

a. Miscellaneous

45. Basiyev, T.T.; Boldyrev, S.A.; Denker, B.I.; Il'ichev, N.N.; Leonov, G.S.; Malyutin, A.A.; Mirov, S.B.; Pashinin, P.P. (IOF). Optimizing the parameters of the active elements in miniature concentrated Li-Nd-La-phosphate glass lasers. KVEKA, no. 8, 1984, 1671-1674.

46. Nasel'skiy, S.P.; Novikov, V.K.; Ryabov, A.I.; Sergeyev, A.M.; Toropkin, G.N. (). The effect of induced absorption in the reflector material on the efficiencies of solid-state lasers. KVEKA, no. 8, 1984, 1681-1683.

b. Nd

47. Alekseyev, V.N.; Borodachev, Ye.G.; Borodin, V.G.; Gorokhov, A.A.; Kryzhanovskiy, V.I.; Krylov, V.N.; Lyubimov, V.V.; Mak, A.A.; Migel', V.M.; Malinov, V.A.; Nikitin, N.V.; Serebryakov, V.A.; Starikov, A.D.; Charukhchev, A.V.; Chernov, V.N.; Chertkov, A.A.; Yashin, V.Ye. (). The "Progress" six-channel neodymium phosphate glass laser facility. IANFA, no. 8, 1984, 1477-1484.

48. Dzhibladze, M.I.; Mshvelidze, G.G.; Erikashvili, R.R.; Esiashvili, Z.G. (TbGU). Bleaching of color centers in a neodymium glass fiber laser. SAKNA, vol. 115, no. 2, 1984, 265-268.

49. Ivlev, G.D.; Morgun, Yu.F.; Zhidkov, V.V. (). Laser for technological applications and scientific research. CRNTShSL. Materialy. Minsk, 1983, 90-92. (RZRAB, 84/7Ye425).

50. Shkadarevich, A.P.; Yarzhemkovskiy, V.D. (). Study on LED-pumped solid-state neodymium lasers. CRNTShSL. Materialy. Minsk, 1983, 113-115. (RZRAB, 84/7Ye97).

51. Volosov, V.D.; Dedushkevich, V.V.; Krylov, V.N.; Tolstoshev, A.V. (). Optimizing the process of generating second harmonics of multimode neodymium glass laser radiation. IANFA, no. 8, 1984, 1643-1645.

c. Er

B. LIQUID LASERS

1. Organic Dyes

a. Miscellaneous

52. Basov, Yu.G.; Boldyrev, S.A.; Litvinov, V.S. (). Calculating the parameters of the discharge circuit and flashlamps for dye lasers. Elektronnaya tekhnika. Seriya 4, no. 4, 1983, 33-37. (TVKED, 34/84, 776).

53. Blaszczak, Z. (). Dye lasers. Fizyka w szkole, no. 5, 1983, 259-267. (RZFZA, 84/8A28).

54. Bondar, M.V.; Vovk, L.V.; Zabello, Ye.I.; Tikhonov, Ye.A. (IFANUk). Laser with dynamically distributed feedback formed by opposed pump beams. UFZHA, no. 7, 1984, 988-993.

55. Boyko, I.I.; Boyko, T.N.; Bonch-Bruyevich, A.M.; Markina, T.A.; Razumova, T.K.; Starobogatov, I.O. (). Wideband tuning in pyrryl salt solutions. CRNTShSL. Materialy. Minsk, 1983, 54-56. (RZFZA, 84/7L1050).

56. Das'ko, A.D.; Katarkevich, V.M.; Rubinov, A.N.; Ryzhechkin, S.A.; Efendiyev, T.Sh. (IFANB). Holographic distributed feedback dye lasers. IANFA, no. 8, 1984, 1522-1526.

57. Demchuk, M.I.; Mikhaylov, V.P.; Ishchenko, A.A.; Kudinova, M.A.; Tolmachev, A.I.; Yumashev, K.V. (). Effect of the structures of thiopyrilocyanic dyes on the output characteristics of a laser with passive mode lock. ZPSBA, vol. 41, no. 1, 1984, 21-28.

58. Dmitriyev, V.G.; Spitsyn, Ye.M.; Cherednichenko, O.B. (). E-beam controlled tunable lasers. IANFA, no. 8, 1984, 1504-1510.

59. Dorofeyev, S.N.; Klimashina, A.G.; Mnuskin, V.Ye.; Nikiforov, V.G.; Trinchuk, B.F.; Tokareva, A.N.; Fedorov, V.A. (). The LZhI-502 industrial tunable dye laser. ZPSBA, vol. 41, no. 2, 333-335.

60. Dzyubenko, M.I.; Kraynov, I.P.; Maslov, V.V. (). Study on the laser characteristics of water-soluble dyes in the blue-green region of the lasing spectrum. OPSPA, v. 57, no. 1, 1984, 95-98.

61. Dzyubenko, M.I.; Pelipenko, V.P.; Shevchenko, V.V. (). Flashlamp-pumped high-power dye laser. CRNTShSL. Materialy. Minsk, 1983, 17-19. (RZFZA, 84/7L1049).

62. Efendiyev, T.Sh. (). Distributed-feedback dye lasers. CRNTShSL. Materialy. Minsk, 1983, 10-15. (RZFZA, 84/7L1136).

63. Gromov, D.A.; Dyumayev, K.M.; Manenkov, A.A.; Maslyukov, A.P.; Matyushin, G.A.; Nechitaylo, V.S.; Prokhorov, A.M. (IOF). Efficient lasers based on dyes introduced into polymer matrices. IANFA, no. 7, 1984, 1364-1369.

64. Klementov, A.D.; Morozov, N.V.; Sergeyev, P.B. (FIAN). An investigation of dye lasers pumped by a high-power KrF-laser. KVEKA, no. 7, 1984, 1389-1393.

65. Konefal, Z. (). Head with a longitudinal flow of the active medium for operation in a liquid laser system. Patent Poland, no. 120167, 30 Nov 1983. (RZRAB, 84/8Ye322).

66. Korol'kova, N.V.; Uzhinov, B.M. (). The effect of intermolecular interactions on the spectral-luminescent and lasing characteristics of oxazine 17. ZPSBA, vol. 41, no. 2, 1984, 216-220.

67. Kotomtseva, L.A.; Loyko, N.A.; Samson, A.M. (). A tunable dye ring laser with a selective gate. ZPSBA, vol. 41, no. 1, 1984, 15-20.

68. Kukushkin, V.G. (). Spectral concentration of radiation in the spectrum of a dye laser with an absorption cell. CRNTShSL. Materialy. Minsk, 1983, 24-26. (RZFZA, 84/7L1107).

69. Lisitsyn, V.M.; Lyakh, G.O.; Orlovskiy, V.M., Osipov, V.V.; Urbazayev, M.N. (ISE). A rhodamine-6G laser with cathodoluminescent pumping. KVEKA, no. 8, 1984, 1670-1671.

70. Petnikova, V.M.; Pleshanov, S.A.; Shuvalov, V.V. (MGU). Strong compression of laser pulses in dye lasers under single-pulse picosecond excitation. KVEKA, no. 8, 1984, 1668-1669.

71. Vasil'yeva, M.A.; Gul'binas, V.; Kabelka, V.; Masalov, A.V.; Syrus, V. (IFANLi). The dispersion of the phase response of dye solutions under picosecond excitation. KVEKA, no. 7, 1984, 1431-1436.

72. Voytovich, A.P.; Kalinov, V.S.; Smirnov, A.Ya. (IFANB). Controlling the radiation characteristics of ring dye lasers by resonant phase polarization methods. KVEKA, no. 7, 1984, 1492-1495.

73. Voytovich, A.P.; Kalinov, V.S; Smirnov, A.Ya. (). A dye ring laser with unidirectional lasing and a narrow radiation spectrum tied to atomic absorption lines. ZPSBA, vol. 41, no. 1, 1984, 10-14.

74. Zeylikovich, I.S.; Pul'kin, S.A.; Gayda, L.S. (GrodGU). Interaction of a strong light field of a dye laser with a two-level system. ZETFA, v. 87, no. 1, 1984, 125-134.

b. Rhodamine

75. Denisov, L.K.; Krasnov, I.V.; Onsin, Ye.V.; Trofimov, A.N.; Fomin, V.V. (). Effect of the shape and energy of the pumping pulse on the pulse characteristics of rhodamine dye laser radiation. CRNTShSL. Materialy. Minsk, 1983, 20-22. (RZFZA, 84/8L855).

76. Korobov, A.M.; Nikolayev, S.V. (). High-power rhodamine 6G laser with a ring cuvette excited by standard tubular flashlamps. CRNTShSL. Materialy. Minsk, 1983, 23. (RZRAB, 84/7Ye79).

c. Polymethine

d. Coumarin

e. Phthalimide

f. Cyanine

g Xanthene

h. POPOP

2. Inorganic Liquids

C. GAS LASERS

1. Theory

77. Ashurbekov, N.A.; Yegorov, V.S.; Borisov, V.B. (LGU). Study on the process of relaxation of an excited population in a high-power nanosecond pulsed discharge plasma in neon. VLUFB, no. 3, 1984, 85-88.

78. Basov, N.G.; Dolinina, V.I.; Zvorykin, V.D.; Kipshakbayev, A.I.; Kovsh, I.B.; Pyatakhin, M.V.; Urin, B.M. (FIAN). Measuring the efficiency of vibrational excitation of molecules in a non-self-sustained discharge. FIAN. Preprint, no. 292, 1983, 27 p. (RZFZA, 84/7G265).

79. Basov, N.G.; Zvorykin, V.D.; Kovsh, I.B.; Kipshakbayev, A.I.; Lopatnikov, A.N.; Pyatakhin, M.V.; Urin, B.M. (FIAN). Measuring the efficiency of vibrational excitation of molecules in a non-self-sustained discharge. ZTEFA, no. 7, 1984, 1294-1301.

80. Bazhulin, S.P.; Basov, N.G.; Zuyev, V.S.; Kanayev, A.V.; Mikheyev, L.D.; Shirokikh, A.P. (FIAN). Gas laser media with high thermal stability. IANFA, no. 8, 1984, 1573-1579.

81. Boyko, V.A.; Bunkin, F.V.; Derzhiyev, V.I.; Yakovlenko, S.I. (IOF). Active laser media based on a recombining plasma of multicharged ions. IANFA, no. 8, 1984, 1626-1638.

82. Breyev, V.V.; Dvurechenskiy, S.V.; Pashkin, S.V. (). Numerical study on the characteristics of current flow during various means of achieving a discharge in fast-flow lasers. Heating a gas with the ion component of a current. TVYTA, no. 4, 1984, 640-643.

83. Danileyko, M.V.; Fal', A.M.; Shpak, M.T.; Yatsenko, L.P. (IFANUk). Frequency modulated resonances in radiation from gas lasers with intracavity nonlinear absorption. UFZHA, no. 7, 1984, 1109-1112.

84. Kaldymov, A.A.; Lukin, V.P.; Melamud, A.E.; Mironov, V.L. (). Feasibility of designing a high-precision laser reference system. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 235-238

85. Karlov, N.V.; Kuz'min, G.P.; Prokhorov, A.M. (). Gas-discharge lasers with plasma electrodes. IANFA, no. 7, 1984, 1430-1436.

86. Kravchenko, V.F. (IOF). Similarity criteria and ways of optimizing pulsed gas-discharge lasers. IOF. Preprint, no. 216, 1984, 20 p.

87. Piotrovskiy, Yu.A.; Reutova, N.M.; Tolmachev, Yu.A. (). Role of stepped ionization in the processes for formation of population inversion in self-limited transition lasers. OPSPA, v. 57, no. 1, 1984, 99-104.

88. Udalov, Yu.B. (FIAN). Line selection and frequency tuning in c-w gas-discharge CO2 and CO laasers. FIAN. Dissertation, 1984, 15 p.

89. Urbazayev, M.N.; Soldatov, A.N.; Solomonov, V.I.; Lyakh, G.D.; Sharabarin, Ye.V. (). Portable laser with cathode luminescence pumping. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 233-234.

90. Vas'kov, V.A. (MIFI). Research and development of gas lasers for optical rangefinder refractometers. MIFI. Dissertation, 1983, 15 p. (TVKED, 34/84, 944).

91. Vas'kov, V.A.; Gonchukov, S.A.; Kurbatov, Ye.V.; Protsenko, Ye.D. (). Frequency characteristics of two-mode isotopically mixed lasers. CVNTKMOI, Khar'kov, 23-25 Nov 1983. Tezisy dokladov. Khar'kov, 1983, pp not given. (TVKED, 34/84, 271).

92. Vinokurov, N.I.; Fomenko, Yu.F. (). Study on the start-up characteristics of lasers to improve their reliability. CVNTKMOI, Khar'kov, 23-25 Nov 1983. Tezisy dokladov. Khar'kov, 1983, pp not given. (TVKED, 34/84, 271).

93. Zaroslov, D.Yu.; Kuz'min, G.P.; Tarasenko, V.F. (). Grazing discharge in CO2 and excimer lasers. RAELA, no. 7, 1984, 1217-1241.

2. Simple Mixtures

a. Miscellaneous

94. Bokhan, P.A.; Yegorov, L.Ye. (ITF). A helium-europium laser with a specific energy of radiation of 5 J/l-atm. KVEKA, no. 8, 1984, 1683-1685.

b. He-Ne

95. Astakhov, A.V.; Gorlov, Yu.V.; Mukhamedgaliyeva, A.F.; Nikitin, V.V. (MGIN). Study on the change in angular divergence of the radiation of a helium-neon laser at 3.39 um, based on the dispersion characteristics of the active medium. KVEKA, no. 8, 1984, 1692-1694.

96. Belyayev, A.K. (LGU). Temperature dependences of rate constants of nonadiabatic processes during atomic collisions and excitation transfer processes in He-Ne lasers. LGU. Dissertation, 1983, 16 p. (TVKED, 34/84, 687).

97. Nikulin, A.B.; Tuchin, V.V. (). Modulation characteristics of a two-isotope gas laser. Issledovaniya po nelineynoy optike i spektroskopii: spektroskopiya molekul, primesnykh tsentrov i lazernykh sred. SGU. Saratov, 1983, 3-7. (RZFZA, 84/8L936).

98. Vinokurov, N.I.; Linker, B.Yu.; Yaroslavtseva, L.Ya. (). Design and experimental determination of the basic parameters of a two-frequency He-Ne laser. CVNTKMOI, Khar'kov, 23-25 Nov 1983. Tezisy dokladov. Khar'kov, 1983, pp not given. (TVKED, 34/84, 271).

c. He-Xe

99. Apollonov, V.V.; Bunkin, F.V.; Derzhavin, S.I.; Prokhorov, A.M.; Sirotkin, A.A.; Firsov, K.N. (IOF). Lasing from atmospheric xenon in an optical discharge plasma. IANFA, no. 7, 1984, 1389-1393.

d. He-Kr

e. Ar-Xe

3. Molecular Beam and Ion

a. Miscellaneous

100. Antipenko, B.M.; Privalova, T.A.; Tarasenko, V.V. (). Detection of the radiation amplification effect in a gas-phase Br2 medium under lamp pumping. OPSPA, v. 57, no. 1, 1984, 150-152.

101. Apollonov, V.V.; Minenkov, V.R.; Prokhorov, A.M.; Semkin, V.V.; Firsov, K.N.; Shubin, B.G.; Yamshchikov, V.A. (IOF; NIIVN). The formation of a three-dimensional independent discharge under conditions of intense ultraviolet illumination of the region near the cathode. KVEKA, no. 7, 1984, 1327-1332.

102. Atutov, S.N.; Plekhanov, A.I.; Shalagin, A.M. (). Superluminescence at the resonant transition of Na atoms under optical excitation. OPSPA, v. 56, no. 2, 1983, 215-221. (RZFZA, 84/7L1038).

103. Belov, A.L.; Syts'ko, Yu.I.; Yakovlenko, S.I. (MIFI). The modulation of radiation in an active medium during microwave-modulated pumping. KVEKA, no. 8, 1984, 1609-1617.

104. Korukhov, V.V.; Nikulin, N.G.; Troshin, B.I. (ITF). Study on population inversion at OVII ion levels. KVEKA, no. 7, 1984, 1364-1367.

105. Molevich, N.Ye.; Orayevskiy, A.N. (FIAN). Long-wavelength molecular lasers and the prospects for their development (survey). KVEKA, no. 8, 1984, 1515-1532.

b. CO2

106. Dzisyak, A.P.; Lyakishev, V.G.; Sidel'nikov, A.Ye.; Saprykina, O.F.; Cheburkin, N.V. (). Stabilization of the parameters of closed-cycle electroionization CO2-lasers. KVEKA, no. 8, 1984, 1686-1688.

107. Kolosovskaya, L.A. (). Program for calculating the energy and spectral characteristics of a CO2 laser with an unstable resonator. Elektronnaya tekhnika. Seriya 1, no. 6, 1983, 63-65. (TVKED, 34/84, 676).

108. Konev, Yu.B.; Lipatov, N.I.; Pashinin, P.P.; Prokhorov, A.M. (IOF). The energy characteristics of a waveguide CO2 laser. KVEKA, no. 8, 1984, 1641-1645.

109. Kurbatov, Yu.A.; Savin, V.V.; Filonov, A.G. (KGRI). Calculating the gain in a CO2 laser with an additive of tri-n-propylamine under excitation by a self-sustained discharge. UkrNIINTI. Deposit, no. 466Uk-84, 12 Mar 1984, 13 p. (RZFZA, 84/7L1002).

110. Kurbatov, Yu.A.; Savin, V.V.; Filonov, A.G. (KGRI). Mathematical model of a self-sustained discharge in the active medium of a CO2 laser with additives of lightly ionized substances. UkrNIINTI. Deposit, no. 467Uk-84, 12 Mar 1984, 17 p. (RZFZA, 84/7L1001).

111. Plinski, E.F.; Nowicki, R.; Abramski, K.M.; Pienkowski, J.; Rzepka, J. (). Low-power CO2 laser with frequency-stabilized output radiation. PAUKA, no. 11, 1983, 366-368,395-396. (RZRAB, 84/Ye19).

112. Ryabykh, V.N.; Svich, V.A.; Topkov, A.N. (KhGU). Investigation of a tunable CO2 laser excited by a transverse high-frequency discharge. KVEKA, no. 8, 1984, 1651-1653.

113. Vorob'yeva, N.N.; Galushkin, M.G.; Glotov, Ye.P.; Lyakishev, V.G.; Rodionov, V.I.; Seregin, A.M.; Cheburkin, N.V.; Chekin, S.K. (NITsTLAN). Study on the spectral characteristics of pulsed, high-pressure CO2 lasers. KVEKA, no. 7, 1984, 1454-1458.

c. CO

114. Basov, N.G.; Dolinina, V.I.; Kovsh, I.B.; Pyatakhin, M.V.; Urin, B.M. (FIAN). Self-consistent analysis of the kinetics of elementary processes in an electroionization CO laser. FIAN. Preprint, no. 183, 1984, 30 p.

115. Bulavin, R.Ye.; Buchanov, V.V.; Molodykh, E.I. (MFTI). Effect of line overlap on the spectral composition of an electroionization CO laser. VINITI. Deposit, no. 2110-84, 9 Apr 1984, 7 p. (RZFZA, 84/7L1011).

116. Dubovskiy, P.Ye.; Lotkova, E.N.; Ponomarev, D.I.; Sobolev, N.N. (FIAN). Saturation index and saturation parameter of a waveguide laser with distributed losses. FIAN. Preprint, no. 206, 1984, 15 p.

117. Konev, Yu.B.; Kochetov, I.V.; Kurnosov, A.K. (IAE). Effect of impurities in diatomic molecules on the lasing characteristics of CO lasers. Part 1. Lasing at the fundamental frequency. IAE. Preprint, no. 3829/11, 1983, 24 p. (RZFZA, 84/7L1012).

118. Masychev, V.I.; Sysoyev, V.K. (FIAN). Spectral characteristics of sealed-off lasers using isotopes of the CO molecule at room temperature. FIAN. Preprint, no. 269, 1983, 18 p. (RZFZA, 84/8L820).

d. Noble Gas

e. N2

119. Gritsinin, S.I.; Kossyy, I.A.; Silakov, V.P.; Tarasova, N.M. (). Dynamics of vibrational excitation and heating in nitrogen during and after a pulsed microwave discharge. TVYTA, no. 4, 1984, 672-678.

120. Grochowski, J.; Kowalczyk, P.; Krasinski, J.; Radzewicz, Cz. (). High-repetition-rate atmospheric pressure N2 laser. OPAPB, no. 2, 1983, 169-175. (RZFZA, 84/7L1016).

121. Zvinevich, Yu.V.; Nemkovich, N.A.; Tomin, V.I.; Rubinov, A.N. (). High-power N2 lasers with a transverse discharge at low and atmospheric pressures. CRNTShSL. Materialy. Minsk, 1983, 162-164. (RZFZA, 84/7L1015).

f. I2

g. H2

h. NH3

i. CF4

j. N2O

k. H2O

l. D2O

m. Submillimeter

n. Metal Vapor

122. Babich, V.M.; Zimokosov, G.A.; Solov'yev, V.S. (). Frequency and energy characteristics of He-Cd lasers. CVNTKMOI, Khar'kov, 23-25 Nov 1983. Tezisy dokladov. Khar'kov, 1983, pp not given. (TVKED, 34/84, 271).

123. Babich, V.M.; Zimokosov, G.A.; Solov'yev, V.S. (). Study on the active elements of He-Cd lasers. CVNTKMOI, Khar'kov, 23-25 Nov 1983. Tezisy dokladov. Khar'kov, 1983, pp not given. (TVKED, 34/84, 271).

124. Baczynski, A.; Dzwonkowski, M.; Targowski, P. (). Effect of the ignition method on the laser output of a pulsed hollow cathode copper ion laser. OPAPB, no. 3, 1983, 231-237. (RZFZA, 84/8L812).

125. Burlakov, V.D.; Gorbunova, T.M.; Mikhaylichenko, Yu.P.; Osipova, N.V.; Soldatov, A.N.; Solomonov, V.I. (). Using the Rozhdestvenskiy hook method to study copper vapor lasers. VINITI. Deposit, no. 2856-84, 4 May 1984, 24 p. (RZFZA, 84/8L825).

126. Direktor, L.B.; Karasev, A.B.; Malikov, M.M.; Mendeleyev, V.Ya.; Ryazanskiy, V.M.; Skovorod'ko, S.N.; Fomin, V.A. (). Device for measuring the temperature of the internal walls of an active chamber in a metal vapor laser. OTIZD, no. 27, 1984, 993710.

127. Fedorov, V.F. (). Sealed-off copper vapor laser with a 100 KHz rep-rate. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 230-232.

128. Grigor'yevskiy, V.I.; Lomakin, A.N.; Tarakanov, S.V. (). Synchronization of strata in He-Cd lasers. CVNTKMOI, Khar'kov, 23-25 Nov 1983. Tezisy dokladov. Khar'kov, 1983, pp not given. (TVKED, 34/84, 271).

129. Kyun, V.V.; Moskalenko, V.F.; Cherezov, V.M. (). Prospects for the development of pulsed recombination metal vapor lasers (according to data from the domestic press for 1963-1981). Obzory po elektronnoy tekhnike. Seriya 11, no. 1, 1982, 1-27. (TVKED, 34/84, 668).

130. Melekhin, G.V.; Stepanov, V.A.; Chirkin, M.V. (). Mechanism of low-frequency fluctuations in the output power of gas-discharge lasers. OPSPA, v. 57, no. 2, 1984, 319-324.

131. Mirza, S.Yu.; Soldatov, A.N.; Sukhanov, V.B.; Troitskiy, V.O. (). Spatial structure of radiation from a copper vapor laser with an unstable resonator. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 260-263.

132. Voronov, V.I.; Gerasimov, V.A.; Yevtushenko, G.S.; Kukharev, V.N.; Soldatov, A.N. (). The Milan 10-2 metal vapor laser with independent preheating. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 256-259.

133. Voronov, V.I.; Yevtushenko, G.S.; Karmanov, G.A.; Kirilov, A.Ye.; Kruglyakov, V.L.; Polunin, Yu.P.; Soldatov, A.N.; Yudin, N.A. (). Copper vapor laser with high pulsed power. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 227-229.

134. Yevtushenko, G.S.; Soldatov, A.N.; Sukhanov, V.B. (). Current status in the development of metal vapor lasers and their use for pumping tunable lasers. CRNTShSL. Materialy. Minsk, 1983, 32-33. (RZRAB, 84/7Ye54).

o. Gasdynamic

135. Testov, V.G.; Grin', Yu.I.; Menenkov, V.D. (IRE). Study on the distribution of laser levels of N2O and CO2 molecules in a nonstationary expansion wave. IRE. Preprint, no. 2/374, 1983, 26 p. (RZFZA, 84/8L830).

136. Vakhnenko, V.A.; Izmaylov, I.A.; Kochelap, V.A. (IPANUk). Recombination gasdynamic lasers operating on electron transitions in diatomic molecules. UFZHA, no. 7, 1984, 996-1002.

137. Voynovich, P.A.; Dymshits, B.M.; Fursenko, A.A. (FTI). Numerical model of gasdynamic phenomena in a supersonic viscous gas flow in a channel with an electric glow discharge. PZTFD, no. 15, 1984, 908-911.

4. Excimer

138. Arslanbekov, S.U.; Derzhiyev, V.I.; Yurovskiy, V.A.; Yakovlenko, S.I. (FIAN). Analyzing the characteristics of the active medium of a helium hydride exciplex laser under pulsed and periodic pulsed pumping. FIAN. Preprint, no. 29, 1984, 29 p. (RZFZA, 84/8L842).

139. Bibinov, N.K.; Vinogradov, I.P. (). Quantum yield in the formation of XeF (B, C, D) from photoexcitation of XeF2. OPSPA, v. 57, no. 2, 1984, 355-357.

140. Lomayev, M.I.; Mel'chenko, S.V.; Panchenko, A.N.; Tarasenko, V.F. (ISE). Non-steady-state method of pumping electric discharge excimer lasers. IANFA, no. 7, 1984, 1385-1388.

141. Mel'chenko, S.V.; Panchenko, A.N.; Tarasenko, V.F. (ISE). An electric discharge XeCl laser with a radiation pulse duration of one microsecond. KVEKA, no. 7, 1984, 1490-1492.

5. Dye Vapor

D. CHEMICAL LASERS

1. Miscellaneous

142. Lavrov, A.V.; Spas, T.A.; Kharchenko, S.S. (). Numerical modeling of steady-state mixing of non-calculated jets, with nonequilibrium processes taken into account. FGVZA, no. 4, 1984, 58-64.

2. F2+H2(D2)

3. Photodissociation

143. Kiselev, V.M.; Grenishin, A.S.; Kotlikova, T.N.; Rodina, L.I. (). Two-frequency passive mode lock in an iodine photodissociation laser. KVEKA, no. 8, 1984, 1542-1554.

144. Zuyev, V.S.; Korol'kov, K.S; Nosach, O.Yu.; Orlov, Ye.P. (FIAN). The effect of a laser field on an inhomogeneity wave in the active medium of an iodine photodissociation laser. KVEKA, no. 7, 1984, 1465-1467.

4. Transfer

5. O2+I2

145. Grigor'yev, F.V.; Goryachev, L.V.; Yeroshenko, V.A.; Kalinovskiy, V.V.; Kormer, S.B.; Kochemasov, G.G.; Lavrov, L.M. (). Study on the operation of a chemical iodine-oxygen laser. IANFA, no. 7, 1984, 1383-1384.

146. Vagin, N.P.; Konoshenko, A.F.; Kryukov, P.G.; Nurligareyev, D.Kh.; Pazyuk, V.S.; Tomashov, V.N.; Yuryshev, N.N. (FIAN). An oxygen-iodine chemical laser based on low-concentration hydrogen peroxide. KVEKA, no. 8, 1984, 1688-1689.

147. Zagidullin, M.V.; Igoshin, V.I.; Kupriyanov, N.L. (FIANKuy). Saturation kinetics of the active medium of an oxygen-iodine laser. KVEKA, no. 7, 1984, 1379-1389.

6. CS2+O2

148. Dudkin, V.A.; Ogurechnikov, V.A. (IPMe). Supersonic CO laser with an atomic oxygen source based on a CS2/O2 flare. PZTFD, no. 16, 1984, 972-975.

7. SF6+H2

E. COMPONENTS

1. Miscellaneous

149. Kuznetsova, N.N. (). Exhibit of the German Democratic Republic at the Nauka-83 [Science-83] Exhibition, Moscow, September 1983. PRSUB, no. 2, 1984, 43-44. (RZFZA, 84/7A33).

150. Morozov, I.A. (compiler). (IFANB). Laser optical elements. Catalog. IFANB. Preprint, no. 317, 1983, 48 p. (RZFZA, 84/8L589).

151. Pol'skiy, Yu.Ye.; Khokhlov, Yu.M. (KAI). Transformer for a laser beam with a circular cross section. OTIZD, no. 26, 1984, 772355.

2. Resonators

a. Design and Performance

152. Alekseyev, V.A.; Nikiforov, V.G.; Shulenin, A.V. (). An unstable resonator with spectral selection of radiation. ZPSBA, vol. 41, no. 2, 1984, 244-248.

153. Alekseyev, V.A.; Trinchuk, B.F.; Shulenin, A.V. (). Characteristics of unstable resonators in organic compound solution lasers with flashlamp pumping. ZPSBA, vol. 41, no. 1, 1984, 28-33.

154. Anan'yev, Yu.A.; Glushchenko, Yu.V. (). Classification of optical resonators. OPSPA, v. 57, no. 2, 1984, 370-372.

155. Berndt, K. (). System for stabilizing the length of the resonator of a mode-locked gas laser. Patent GDR, no. 203435, 19 Oct 1983. (RZRAB, 84/Ye301).

156. Bogatyrev, I.V.; Pospelov, L.A. (). Electrodynamic characteristics of an imperfect Fabry-Perot resonator. CVNTKMOI, Khar'kov, 23-25 Nov 1983. Tezisy dokladov. Khar kov, 1983, pp not given. (TVKED, 34/84, 271).

157. Boytsov, V.F. (). Effect of misalignment of the diaphragm on the nonmutuality of opposed waves in a ring laser. OPSPA, v. 57, no. 2, 1984, 270-274.

158. Gondra, A.D.; Alekseyev, V.A.; Shcherbakov, A.A. (). Effect of hydroacoustic excitation of the active medium on the radiation divergence of a liquid laser. ZPSBA, vol. 41, no. 2, 1984, 201-206.

159. Landa, P.S.; Moiseyev, V.N. (). Mode locking in ring lasers with a nonlinear absorber. OPSPA, v. 57, no. 1, 1984, 110-116.

160. Lyubimov, V.V. (). Effect of light scattering on the oscillation of unstable resonators. Resonator with cylindrical mirrors. OPSPA, v. 56, no. 3, 1984, 497-501. (RZFZA, 84/7L1110).

161. Patek, M.; Khapalyuk, A.P. (NIIPFP). Open optical resonator modified with focusing elements. Vestnik Belorusskogo gosudarstvennogo universiteta. Seriya 1. no. 3, 1984, 28-32.

162. Voytovich, A.P.; Kalinov, V.S.; Mostovnikov, V.A.; Nechayev, S.V.; Smirnov, A.Ya.; Strigun, V.L.; Shalimo, A.L. (). Highly coherent tunable laser light source for holography. CRNTShSL. Materialy. Minsk, 1983, 34-36. (RZFZA, 84/8L926).

163. Zeyger, S.G.; Pelyukhova, Ye.B. (). Study on a system of coupled oscillator and amplifier in terms of efficient coefficient of reflection. OPSPA, v. 56, no. 3, 1984, 502-507. (RZFZA, 84/7L1112).

b. Mode Kinetics

164. Bel'dyugin, I.M.; Vorotilin, S.P. (). The fields of a resonator with a wave front reversal mirror and an inhomogeneous optical medium. KVEKA, no. 7, 1984, 1337-1344.

165. Glushchenko, Yu.V.; Radina, T.V.; Fradkin, E.Ye. (). Diffraction nonmutuality of opposed-wave generation in a ring laser with weak diffraction. OPSPA, v. 57, no. 2, 1984, 328-334.

166. Kiriyevskiy, A.P.; Nikonchuk, M.O.; Pugach, I.P. (). Mode interaction in a multifrequency ring gas laser. OPSPA, v. 57, no. 2, 1984, 325-327.

167. Logginov, A.S.; Yul'berdin, Yu.F. (). Radiation dynamics of transverse modes in a resonator with active filling, allowing for interaction of the field and medium. IVUZB, no. 2, 1984, 31-36. (RZRAB, 84/Ye295).

168. Pestov, E.G.; Timofeyev, V.I. (). Theory of interaction of waves with quantum systems in a longitudinal magnetic field. OPSPA, v. 56, no. 2, 1984, 291-295. (RZFZA, 84/7L1113).

3. Pump Sources

169. Agafitei, A.; Badeu, G.; Fenic, C.; Izbasescu, M. (). Source of direct current for a laser power supply. Patent Romania, no. 80902, 28 Feb 1983. (RZRAB, 84/7Ye357).

170. Anan'yev, L.M.; Gordeyev, P.G.; Kalinov, A.A.; Polyakov, N.P.; Rumyantsev, P.P.; Sipenko, V.V.; Yarushkin, Yu.P. (). High-power magneto-thyristor generator with a high frequency pulse rep-rate. PRTEA, no. 1, 1984, 127-129.

171. Baranov, V.Yu.; Borisov, V.M.; Vysikaylo, F.I.; Khristoforov, O.B. (). Study on the conditions for forming a homogeneous high-current grazing discharge. TVYTA, no. 4, 1984, 661-666.

172. Basov, Yu.G. (). Space-time evolution of the discharge in flashlamps for solid-state lasers. Elektronnaya tekhnika. Seriya 4, no. 4, 1983, 22-23. (TVKED, 34/84, 808).

173. Gradov, V.M.; Mak, A.A.; Shcherbakov, A.A.; Yakovlev, A.V. (). Self-consistent analysis of laser pumping systems. Characteristics of pumping systems with an inhomogeneous temperature distribution in the lamp discharge. OPSPA, v. 57, no. 1, 1984, 105-109.

174. Ivanov, I.Ts.; Somov, L.N. (OIYaI). Using the energy of nuclear reactions for preionization and pumping of the active medium of lasers. OIYaI. Soobshcheniye, no. 18-83-822, 1983, 12 p. (RZFZA, 84/7L1047).

175. Korobkin, V.V.; Marin, M.Yu.; Pil'skiy, V.I.; Polonskiy, L.Ya.; Pyatnitskiy, L.N. (IVTAN). Dynamics of a continuous optical discharge in air. IVTAN. Preprint, 1984, 32 p. (RZFZA, 84/8G416).

176. Lebedev, V.I.; Tsysetskiy, I.A. (TsKBOPANB, IFANBMO). Power supply unit for solid-state lasers designed at the Central Design Bureau with Trial Production and Mogilev Branch of the Belorussian Academy of Sciences. CRNTShSL. Materialy. Minsk, 1983, 106-107. (RZRAB, 84/7Ye355).

177. Lipatov, N.I.; Mineyev, A.P.; Myshenkov, V.I.; Pashinin, P.P.; Prokhorov, A.M. (OIF). Stabilizing effect of a variable magnetic field on the ionization superheating instabilities of a glow discharge plasma. PZTFD, no. 7, 1984, 408-412.

178. Mizeraczyk, J. (). Study on longitudinal hollow-cathode discharges. APAHA, no. 1-2, 1983, 71-95. (RZFZA, 84/7G347).

179. Schramm, W. (). Pin electrode for a gas-discharge chamber. Patent GDR, no. 203661, 23 Feb 1982. (RZRAB, 84/8Ye331).

180. Vikharev, A.L.; Ivanov, O.A.; Stepanov, A.N. (IPF). Breakdown of a pulsed microwave-discharge plasma in intersecting wave beams. FIPLD, no. 4, 1984, 792-800.

4. Cooling Systems

5. Deflectors

181. Bogdanov, S.V. (IFPSOAN). The optimization of acoustooptical light deflectors. KVEKA, no. 7, 1984, 1481-1483.

6. Attenuators

182. Kucharski, M.; Muzik, J. (). Optical attenuator. JMKOA, no. 2, 1984, 37-38. (RZFZA, 84/8L597).

7. Collimators

8. Diffraction Gratings

183. Maciak, T. (). Methods for producing periodic structures for integrated optics. EKNTB, no. 9, 1983, 23-28. (RZRAB, 84/8Ye520).

184. Veyko, V.P.; Dul'nev, G.N.; Kostyuk, G.K.; Meshkovskiy, I.K.; Chuyko, V.A.; Yakovlev, Ye.B. (LITMO). Method for producing a microlens regulated grating. OTIZD, no. 30, 1984, 1108382.

9. Focusers

185. Volkova, N.A.; Korobkin, V.V.; Malysheva, Ye.Yu.; Polonskiy, L.Ya.; Poponin, V.P.; Pyatnitskiy, L.N. (IVTAN). Focusing of laser radiation by axicons. IVTAN. Preprint, no. 5-126, 1984, 33 p. (RZFZA, 84/7L591).

10. Windows

11. Polarizers

12. Amplifiers

13. Lenses

186. Bobrov, S.T.; Kotletsov, B.N.; Turkevich, Yu.G. (). Projection objective with diffraction lenses. OPSPA, v. 57, no. 2, 1984, 349-354.

14. Filters

187. Sychugov, V.A.; Tishchenko, A.V.; Tulaykova, T.V. (IOF). Narrowband integrated optical filter. ZTEFA, no. 8, 1984, 1555-1558.

188. Verenik, V.N.; Koptev, V.G.; Razvina, T.M.; Rzhevskiy, M.B.; Stavrov, A.A.; Starostina, G.P. (). Solid-state luminescent light filters for neodymium lasers. ZPSBA, vol. 41, no. 1, 1984, 43-48.

15. Beam Splitters

16. Mirrors

189. Glotov, Ye.P.; Danilychev, V.A.; Sazhina, N.N.; Osintseva, A.L.; Shcherbakov, Yu.M.; Cheburkin, N.V. (FIAN). The nature of the damage of resonator mirrors in powerful electroionization technological CO2 lasers. KVEKA, no. 8, 1984, 1636-1640.

190. Horak, R.; Krepelka, J. (). Vizualizing the path of propagation in the infrared. CKCFA, v. A34, no. 1, 1984, 47-51. (RZFZA, 84/8L515).

191. Kolchigin, N.N.; Oblyvach, S.A.; Przhigodskiy, V.V.; Suslov, L.M. (KhGU). Synthesis of metal-dielectric reflectors by means of the coefficient of reflection along the surface. UkrNIINTI. Deposit, no. 474Uk-84, 12 Mar 1984, 18 p. (RZFZA, 84/8L593).

192. Sintsova, I.T.; Gagarin, A.P. (). Oxide-based ceramics for laser reflectors. ZPSBA, vol. 41, no. 2, 294-296.

193. Yerokhin, V.N. (). Thermal operating conditions for a 6-meter telescope and possible ways for perfecting telescopes and domes. Vsesoyuznaya konferentsiya Rabochoy gruppy Astroklimat astrosoveta AN SSSR, Abastumani, 23-26 Nov 1981. Trudy. Leningrad, 1984, 10-19. (RZASA, 84/7L748).

17. Detectors

194. Abramski, K.M. (). Frequency response of photodetector measurements by means of heterodyne and interferometric techniques of detection. OPAPB, no. 3, 1983, 223-229. (RZFZA, 84/8L583).

195. Kirakosyants, V.Ye.; Loginov, V.A. (GOI). Parametric optimization of optical signal detectors constructed according to a direct photodetection scheme. OPMPA, no. 8, 1984, 16-18.

196. Shchelkunov, K.N.; Barbanel', Ye.S. (). Signal/noise ratio in direct and heterodyne detection of optical signals. Teoriya peredachi informatsii po kanalam svyazi. Leningrad, 1984, 3-7. (RZRAB, 84/8Ye308).

18. Modulators

197. Berezhnoy, A.A.; Buzhinskiy, A.A.; Popov, Yu.V. (). Information recording and reproduction in PRIZ image-converter modulators by means of rasters. ZTEFA, no. 8, 1984, 1619-1622.

198. Bieniek, S.; Denus, S.; Kowalski, S.; Pokora, L.; Stefaniak, T.; Szukalski, J. (). Pockels cell with an electrooptic crystal. Patent Poland, no. 119767, 18 Nov 1983. (RZRAB, 84/8Ye320).

199. Bobylev, Yu.P.; Ivanova, G.V.; Tager, S.A.; Shoshin, V.M. (). Fast-flow liquid crystal light valves. MKETA, no. 4, 1984, 324-329.

200. Bozhevol'nyy, S.I.; Buritskiy, K.S.; Zolotov, Ye.M.; Tavlykayev, R.F.; Chernykh, V.A. (IOF). Study on an interference commutator of 2x2 optical channels. IOF. Preprint, no. 211, 1984, 20 p.

201. Bryskin, V.V.; Korovin, L.I.; Petrov, M.P. (FTI). Linear operating mode of a PRIZ image-converter space-time light modulator. ZTEFA, no. 8, 1984, 1504-1511.

202. Buritskiy, K.S.; Zolotov, Ye.M.; Prokhorov, A.M.; Chernykh, V.A. (IOF). Study on the temperature dependence of the efficiency of nonlinear interactions in a Ti:LiNbO3 waveguide channel. IOF. Preprint, no. 212, 1984, 12 p.

203. Butkhuzi, T.V.; Georgobiani, A.N.; El'tazarov, B.T.; Khulordava, T.G. (FIAN). Luminescence properties of single crystal layers of zinc oxide produced on a ZnS crystal base. KRSFA, no. 8, 1984, 3-6.

204. Desyatskov, V.A.; Fefelov, A.P.; Khomenko, S.I. (). Study on a combined switch based on a frustrated total internal reflection modulator for single-pulse lasers. CRNTShSL. Materialy. Minsk, 1983, 81-83. (RZRAB, 84/7Ye145).

205. Dumarevskiy, Yu.D.; Kovtonyuk, N.F.; Kompanets, I.N.; Parfenov, A.V.; Petrovicheva, G.A.; Savin, A.I. (FIAN). The effect of refocusing an optical system with a metal-dielectric-semiconductor-liquid crystal structure. DANKA, v. 277, no. 6, 1984, 1371-1375.

206. Glushenko, V.N.; Derenovskiy, M.V.; Dmitruk, V.A.; Savchenko, S.N. (KPIA). E-beam space-time light modulator. VKPRB, no. 21, 1984, 7-8. (RZRAB, 84/7Ye144).

207. Grochowski, L.; Domanski, A. (). Method for modulating a laser beam and a laser modulator. Patent Poland, no. 119748, 18 Nov 1983. (RZRAB, 84/Ye143).

208. Gusev, V.A.; Demenko, S.I.; Detinenko, V.A.; Malinovskiy, V.K. (). Image-converter space-time light modulator with enhanced photosensitivity. AVMEB, no. 1, 1984, 108-109. (RZFZA, 84/7L755).

209. Jelinkova, H.; Hamal, K. (). Q-switched laser with constant gain. JMKOA, no. 3, 1984, 59-61. (RZFZA, 84/8L935).

210. Kukhtin, M.P.; Kanarik, G.G. (). LiNbO3 modulator. RTKHA, no. 69, 1984, 97-103. (RZRAB, 84/7Ye141).

211. Sadovnikov, V.I. (). Contactless optoelectronic switch. Optoelektronnyye preobrazovateli i ustroystva otobrazheniya informatsii. Moskva, 1983, 22-28. (RZRAB, 84/7Ye349).

212. Vlokh, O.G.; Nosenko, A.Ye.; Gamernik, R.V.; Bilyy, A.I. (LvGU). Determining the electrooptic coefficients for calcium gallium germanium oxide crystals. KRISA, no. 4, 1984, 800-801.

213. Volkov, R.A.; Mukhin, Yu.A.; Chirkov, V.G.; Chuyko, A.F. (MEI). Possibility of developing an efficient e-m radiation modulator. MEI. Trudy, no. 597, 1983, 70-75. (RZFZA, 84/7L757).

214. Voronin, Ye.N. (MAI). Optical diagramming device. OTIZD, no. 2, 1984, 1067555. (RZRAB, 84/8Ye335).

F. NONLINEAR OPTICS

1. General Theory

215. Al'tshuler, G.B.; Yermolayev, V.S.; Krylov, K.I.; Manenkov, A.A. (IOF; LITMO). Nonlinear optical scattering in inhomogeneous media and the feasibility of its use in lasers. IANFA, no. 8, 1984, 1534-1544.

216. Arutyunyan, V.A.; Kazaryan, E.M. (). Two-photon absorption in semiconductor films in the presence of a Bose condensate of excitons. IAAFA, no. 1, 1984, 10-14. (RZFZA, 84/7N387).

217. Bogolyubov, N.N.; Fam Le Kien; Shumovskiy, A.S. (OIYaI). Two-photon process in a three-level system. OIYaI. Preprint, no. Ye17-83-829 [in English], 1983, 4 p. (RZFZA, 84/7L937).

218. Bykova, O.G.; Bykova, N.G.; Lebedeva, V.V. (MGU). Nonlinear resonance at the Doppler line contour wing in three-level spectroscopy. VINITI. Deposit, no. 2656-84, 26 Apr 1984, 23 p. (RZFZA, 84/7L961)

219. Dianov, Ye.M.; Karasik, A.Ya.; Prokhorov, A.M.; Serkin, V.N. (IOF). Nonlinear phenomena in fiber optics. IANFA, no. 8, 1984, 1458-1465.

220. Golovinskiy, P.A. (VISI). Pondermotive forces in nonlinear optics. PZTFD, no. 13, 1984, 777-780.

221. Gubin, M.A.; Yevseyev, I.V.; Reshetov, V.A. (FIAN). Photon echo in gases: experimental methods for generation and variety. FIAN. Preprint, no. 214, 1984, 51 p.

222. Ivanov, L.N. (ISAN). Shifting and deformation of atomic emission lines in a laser radiation field. Multiphoton processes. IANFA, no. 7, 1984, 1273-1280.

223. Karlov, N.V.; Kirichenko, N.A.; Sisakyan, Ye.V.; Shafeyev, G.A. (IOF). Study on nonlinear optical phenomena in zinc selenide single crystals. IANFA, no. 7, 1984, 1379-1382.

224. Kocharovskaya, O.A.; Khanin, Ya.I.; Tsaregradskiy, V.B. (GGU, IPF). Resonance effects in the interaction of a two-level system with intense polyharmonic radiation. ZETFA, v. 86, no. 2, 1984, 423-433.

225. Kodousek, J. (). Optical bistability. JMKOA, no. 1, 1984, 7-9. (RZFZA, 84/7L982).

226. Kumekov, S.Ye.; Perel', V.I. (FTI). Possibility of inverse distributions of electrons in semiconductors in a monochromatic radiation field. ZFPRA, v. 39, no. 8, 1984, 379-381.

227. Kuyumchyan, V.A.; Kitayeva, V.F.; Zolot'ko, A.S. (FIAN). Dynamics of the reorientation of the director of nematic liquid crystals in narrow light beams. FIAN. Preprint, no. 218, 1984, 28 p.

228. Martynova, Ye.N.; Platonenko, V.T.; Sukhareva, N.A. (MGU). The dynamical Stark effect as the cause of incoherence of the excitation of multilevel systems by quasi-monochromatic radiation. KVEKA, no. 7, 1984, 1473-1476.

229. Nersesyan, M.N.; Pogosyan, P.S.; Sarkisyan, E.S. (YeGU). Reflection characteristics of radiation of various frequencies from a nonlinear boundary. IAAFA, no. 4, 1984, 192-197.

230. Pavlov, N.I.; Kiselev, A.A. (). Rotational Zeeman effect in excited vibrational states. OPSPA, v. 56, no. 2, 1984, 373-376. (RZFZA, 84/8L773).

231. Pestov, E.G. (FIAN). Nonlinear quantum theory of optical collisions and the spectral line contour. FIAN. Preprint, no. 48, 1984, 26 p. (RZFZA, 84/7L938).

232. Rozman, M.; Khizhnyakov, V. (). Two-level system in a field of two laser modes. ETFMB, no. 1, 1984, 119-123. (RZFZA, 84/7L959).

233. Rupasov, V.I.; Yudson, V.I. (ISAN). Rigorous theory of Dicke superradiation: Bethe wave functions in a model with discrete atoms. ZETFA, v. 86, no. 3, 1984, 819-825.

234. Semenov, A.Yu. (MFTI). Analysis of one-dimensional calculations of the interaction of radiation with thin shells. VINITI. Deposit, no. 2529-84, 20 Apr 1984, 88-100. (RZFZA, 84/8L1008).

235. Shchepetil'nikov, B.V.; Yermakov, G.A. (VZISI). Possible mechanism for a series of nonlinear properties in alpha-LiIO3. VINITI. Deposit, no. 2507-84, 19 Apr 1984, 9 p. (RZFZA, 84/8L956).

236. Shirokov, M.I. (OIYaI). Superradiation and confinement of radiation in a model of N oscillator atoms. OIYaI. Preprint, no. R4-83-796, 1983, 12 p. (RZFZA, 84/7L941).

237. Silin, V.P.; Tikhonchuk, V.T. (FIAN). Double stimulated scattering and the development of the theory of parametric instabilities in plasmas. FIAN. Preprint, no. 192 [in English], 1984, 31 p.

238. Solc, I. (). Dispersion of birefringence in quartz and spar. JMKOA, no. 2, 1984, 43-44,48. (RZFZA, 84/8L619).

239. Stepanov, D.Yu.; Shigorin, V.D.; Shipulo, G.P. (FIAN). Controlling phase match during frequency summing and subtracting in uniaxial crystals with square-law optical susceptibility. KRSFA, no. 7, 1984, 43-47.

240. Strel'tsov, V.N . (). Radiative adjustments for atomic levels in a resonant e-m field. OPSPA, v. 56, no. 2, 1984, 209-214. (RZFZA, 84/7L951).

241. Svechnikov, G.S. (OEISKF). Integrated optical elements and fundamental trends in their development. Optoelektronika i poluprovidnikovaya tekhnika, no. 6, 1984, 60-71.

242. Tkachuk, G.B. (MEI). Coherent reflection of a two-photon field from a semi-infinite dispersing medium. MEI. Trudy, no. 602, 1983, 13-19. (RZFZA, 84/7L950).

243. Veklenko, B.A. (MEI). Cooperative effects in an e-m field in dispersing media. MEI. Trudy, no. 602, 1983, 19-23. (RZFZA, 84/7L949).

244. Veklenko, B.A.; Gvozdovskiy, I.V. (MEI). Coherent reflection of resonant radiation from an excited medium. MEI. Trudy, no. 602, 1983, 3-12. (RZFZA, 84/7L951).

245. Zavorotnev, Yu.D.; Ovander, L.N.; Stefanovich, L.I. (). Hyper-Raman scattering as a method for studying coupled states of non-dipole excitons and phonons. OPSPA, v. 56, no. 3, 1984, 435-440. (RZFZA, 84/7L430).

2. Frequency Conversion

246. Aleksandrov, A.V. (). Paramagnetic conversion in potassium vapor of tuneable infrared radiation into the ultraviolet region. KVEKA, no. 8, 1984, 1679-1681.

247. Ananyan, E.S.; Balasanyan, R.N.; Vartanyan, E.S.; Chirkinyan, S.S. (IFI). Features of lithium iodate in intracavity second harmonic generation. KVEKA, no. 8, 1984, 1660-1662.

248. Andreyev, Yu.M.; Betin, A.A.; Voyevodin, V.G.; Gribenyukov, A.I.; Zyryanov, O.Ya.; Ippolitov, I.I.; Masychev, V.I.; Mitropol'skiy, O.V.; Morozov, A.N.; Novikov, V.P.; Novikov, M.A.; Sosnin, A.V. (). Conversion of CO and CO2 laser radiation in zinc germanium phosphide in the 2.3 - 3.1 um region. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 188-192.

249. Andreyev, Yu.M.; Bochkov, D.S.; Zyryanov, O.Ya.; Voyevodin, V.G.; Gribenyukov, A.I.; Morozov, A.N. (). Visualization of IR radiation using various semiconductors. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 222-223.

250. Andreyev, Yu.M.; Voyevodin, V.G.; Gribenyukov, A.I.; Zyryanov, O.Ya.; Ippolitov, I.I.; Morozov, A.N.; Sosnin, A.V.; Khmel'nitskiy, G.S. (IOA, SFTI). Efficient second harmonic generation of tunable CO2 laser radiation in ZnGeP2. KVEKA, no. 8, 1984, 1511-1512.

251. Andreyev, Yu.M.; Voyevodin, V.G.; Gribenyukov, A.I.; Zyryanov, O.Ya.; Ippolitov, I.I.; Morozov, A.N.; Sosnin, A.V.; Khmel'nitskiy, G.S. (). Second harmonic generation of pulsed CO2 laser radiation in zinc germanium phosphide crystals. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 224-226.

252. Arutyunyan, V.M.; Muradyan, A.Zh.; Oganesyan, M.K.; Papazyan, T.A.; Khachatryan, R.Zh. (). Conversion of ultrashort optical pumping pulses into the ultraviolet region in sodium vapor. ZPSBA, vol. 41, no. 1, 1984, 39-43.

253. Barnik, M.I.; Blinov, L.M.; Shtykov, N.M. (NIOPIK). Phase-synchronized second optical harmonic generation in ferroelectric liquid crystals. ZETFA, v. 86, no. 5, 1984, 1681-1683.

254. Begishev, I.A.; Ganeyev, R.A.; Gulamov, A.A.; Redkorechev, V.I.; Usmanov, T. (). Highly efficient fourth harmonic generation in a neodymium glass laser. CRNTShSL. Materialy. Minsk, 1983, 78-80. (RZFZA, 84/7L1165).

255. Bokut', B.V.; Dobrzhanskiy, G.F.; Kazak, N.S.; Lugina, A.S.; Nadenenko, A.V. (). Second harmonic generation in differently polarized pumping waves in crystals of classes 6,4,6mm, 4mm, 622 and 422 with vector synchronism. OPSPA, v. 56, no. 2, 1984, 340-343. (RZFZA, 84/7L1162).

256. Garbuzov, D.Z.; Chalyy, V.P.; Chudinov, A.V.; Davidyuk, N.Yu.; Agayev, V.V. (FTI). Laser converters of shortwave radiation to the IR based on InGaAsP/InP double heterostructures. (1.0-1.35 um, efficiency = 20%, T = 300K). PZTFD, no. 16, 1984, 1010-1016.

257. Melikyan, A.O.; Saakyan, S.G. (IFI). Theory of resonant second harmonic generation and of frequency summing in an adiabatic following regime. KVEKA, no. 8, 1984, 1532-1542.

258. Moshkalev, S.A. (FTI). Kerr effect on third harmonic generation in gas mixtures. FTI. Preprint, no. 858, 1983, 13 p. (RZFZA, 84/7L1164).

259. Polyakov, S.M.; Olikhov, I.M.; Dorofeyev, V.A.; Ladanov, G.I.; Kanevskiy, Ye.I. (). Optical frequency drift in a non-uniformly magnetized ferromagnetic. IZFMB, no. 2, 1983, 57-59. (TVKED, 34/84, 1053).

260. Sukhorukov, A.P.; Titov, V.N.; Trofimov, V.A. (). Effect of regular optical inhomogeneities in a crystal and bleaching of its boundaries on the efficiency of frequency doubling. Lazernyye puchki. Vzaimodeystviye s rezonansnymi i nelineynymi sredami. KhaPI. Khabarovsk, 1982, 23-30. (TVKED, 34/84, 1049).

261. Tagiyev, Z.A. (). Efficiency of second harmonic generation in a resonator. OPSPA, v. 57, no. 2, 1984, 360-362.

262. Zakharova, I.G.; Karamzin, Yu.N. (IPM). Difference method for solving problems on intracavity second harmonic generation. IPM. Preprint, no. 136, 1983, 28 p. (RZFZA, 84/8L957).

3. Parametric Processes

263. Buritskiy, K.S.; Zolotov, Ye.M.; Prokhorov, A.M.; Chernykh, V.A. (IOF). Calculation of the conditions for the parametric generation of light in channeled Ti:LiNbO(sub3) waveguides. KVEKA, no. 7, 1984, 1442-1447.

4. Stimulated Scattering

a. Miscellaneous Scattering

264. Reznikov, Yu.A.; Reshetnyak, V.Yu.; Soskin, M.S.; Khizhnyak, A.I. (IFANUk). Optically induced decrease in the scattering of light by nematic liquid crystals. UFZHA, no. 8, 1984, 1269-1272.

b. Raman

265. Belyy, N.M.; Vakulenko, O.V.; Gubanov, V.A.; Skryshevskiy, V.A. (). Resonant Raman scattering of light in GaAs. ZPSBA, vol. 41, no. 1, 1984, 272-277.

266. Dzhotyan, G.P.; Minasyan, L.L. (). Stimulated Raman scattering in a Fabry-Perot resonator. IAAFA, no. 1, 1984, 20-24. (RZFZA, 84/7L1186).

267. Gorbunov, L.M.; Solikhov, D.K. (FIAN). Stimulated Raman scattering of light in the field of a localized pumping wave. FIPLD, no. 4, 1984, 824-830.

268. Grabchikov, A.S.; Orlovich, V.A.; Gakhovich, D.Ye. (). Study on frequency conversion of laser radiation by stimulated Raman scattering in compressed hydrogen. CRNTShSL. Materialy. Minsk, 1983, 39-40. (RZFZA, 84/7L1187).

269. Krumin'sh, A.V.; Nikogosyan, D.N.; Orayevskiy, A.A. (ISAN). Tuning the radiation frequency of a YAG:Nd-laser by means of stimulated Raman scattering in organic liquids. KVEKA, no. 7, 1984, 1479-1481.

270. Merten, L.; Goltsche, W. (). Stimulated Raman effect on plasmons and longitudinal plasmon-phonons in simple cubic crystals. PSSBB, v. B121, no. 2, 1984, 471-480. (RZFZA, 84/8N338).

271. Radautsan, S.I.; Arushanov, E.K.; Belyy, N.M.; Gubanova, A.A.; Pruglo, V.I. (IPFANM; KGU). Symmetry of vibrational modes and Raman scattering in CdSb crystals. UFZHA, no. 7, 1984, 985-988.

272. Zozulya, A.A.; Silin, V.P.; Tikhonchuk, V.T. (FIAN). Double stimulated Raman scattering in a plasma. KVEKA, no. 7, 1984, 1319-1327.

c. Brillouin

273. Andreyev, A.A.; Shatsev, A.N. (). Possibility of wavefront reversal during stimulated Brillouin scattering in a plasma. PZTFD, no. 14, 1984, 883-888.

274. Bazarov, Ye.N.; Polukhin, A.T. (). Anisotropic collinear stimulated Brillouin scattering in a single-mode fiber lightguide. RAELA, no. 8, 1984, 1619-1621.

275. Kovalev, V.I.; Mikheyev, P.A.; Fayzullov, F.S. (FIAN). Nonlinear scattering at 10.6 microns in a KRS-5 fiber lightguide. KVEKA, no. 8, 1984, 1513-1514.

276. Zozulya, A.A.; Silin, V.P.; Tikhonchuk, V.T. (FIAN). Theory on double stimulated Brillouin scattering in a plasma with a reflecting boundary. ZETFA, v. 86, no. 4, 1984, 1296-1308.

d. Rayleigh

5. Self-focusing

277. Babichenko, S.M.; Kandidov, V.P. (MGU). Spatial coherence of radiation under conditions of small-scale self-focusing. VMUFA, no. 3, 1984, 84-86. (RZFZA, 84/8L994).

278. Furtsev, V.G.; Salo, L.A.; Vysochanskiy, Yu.M.; Slivka, V.Yu. (UzhGU). Self-focusing and diffraction of radiation by incommensurate-phase Sn(sub2)P(sub2)[Se(subx)S(subl-x)](sub6) and its optically-induced spreading. FTVTA, no. 7, 1984, 1946-1948.

279. Rubin, P.L. (FIAN). Interaction of waves of various polarizations during self-focusing of light in liquid crystals. KRSFA, no. 3, 1984, 16-20. (RZFZA, 84/8L995).

280. Yerokhin, N.S.; Fadeyev, A.P. (IPM). Numerical modeling of two-dimensional self-focusing of a wave beam in an inhomogeneous medium. IPM. Preprint, no. 151, 1983, 28 p. (RZFZA, 84/7L1207).

6. Acoustic Interaction

281. Akhmedzhanov, I.M.; Grigor'yev, V.N.; Klimanov, G.S.; Pelekhatyy, V.M.; Prokhorov, A.M.; Shcherbakov, Ye.A. (). Prototype integrated optical correlator with time integration. PZTFD, no. 16, 1984, 979-983.

282. Bogdanov, S.V.; Semenov, V.I. (). Method for measuring photoelasticity of crystals. Applications. OPSPA, v. 57, no. 1, 1984, 71-73.

283. Ctyroky, J.; Kosek, M.; Schroefel, J.; Simankova, L.; Zelenka, J. (). Collinear acoustooptic interaction in LiNbO3:Ti waveguides. ELKCA, no. 2, 1984, 104-113. (RZFZA, 84/7L52).

284. Kludzin, V.V. (). Optical heterodyning in acoustooptic devices. OPSPA, v. 57, no. 2, 1984, 344-348.

285. Korol'kov, V.I. (UDN). Acoustooptic scanner with slit piezoelectric converters. Konferentsiya molodykh uchenykh UDN: Matematika, fizika, khimiya, 6th, Moskva, 17-21 Mar 1983. Materialy. Part 1. VINITI. Deposit, no. 1316-84, 5 Mar 1984, 57-60. (RZFZA, 84/7P134).

286. Lyamshev, L.M. (). Lasers in acoustics. CVakuKon, 10th, Moskva, 1983. Plenarnyye doklady. Moskva, 1983, 38-41. (RZFZA, 84/7P44).

287. Lyamshev, L.M. (). Lasers in acoustics. VANSA, no. 8, 1984, 97-107.

288. Lyamshev, L.M.; Chelnokov, B.I. (AKIN). Radiative thermoacoustic microscopy of condensed media. AKZHA, no. 4, 1984, 564-566.

289. Shmelev, G.M.; Nguyen Quoc Anh; Tsurkan, G.I.; Mensah, S.Y. (). "Currentless" amplification of hypersound in a planar configuration by inelastic scattering of electrons. PSSBB, v. B121, no. 1, 1984, K209-K213. (RZFZA, 84/7N394).

290. Ushakov, V.N.; Pashchenko, G.Ye. (LETI). Acoustooptic phase rotator. OTIZD, no. 25, 1984, 1102021.

291. Vaksman, M.A.; Gayner, A.V. (IAESOAN). Generation of sound and stimulated scattering of light during velocity-selective optical excitation. IAESOAN. Preprint, no. 184, 1983, 15 p. (RZFZA, 84/8L1032).

292. Vasil'yev, M.P. (). Demodulation of f-m signals using acoustooptcs. RAELA, no. 8, 1984, 1605-1609.

293. Voznesenskiy, V.A.; Gassanov, L.G.; Felinskiy, G.S. (KPIA). Integrated optical components based on acoustooptic and electrooptic diffraction in microwaveguides. IVUZB, no. 9, 1984, 9-16.

294. Zyuryukin, Yu.A.; Kobzev, S.M. (). Diffraction of light by a deformed surface. OPSPA, v. 57, no. 2, 1984, 364-366.

295. Zyuryukin, Yu.A.; Ushakov, N.M. (SGU). Apparatus function of an acoustooptic modulator with slow-wave excitation of hypersound. IVYRA, no. 8, 1984, 1065-1072.

G. SPECTROSCOPY OF LASER MATERIALS

296. Agekyan, V.F.; Fan Zung (LGU). Reflection spectrum and photoluminescence of Cd(1-x)Mn(x)Te solid solutions for 0<x<0.5. VLUFB, no. 3, 1984, 6-13.

H. ULTRASHORT PULSE GENERATION

297. Bor, Zh. (). Picosecond pulse generation due to self-Q-switching in a dye laser with distributed feedback. IANFA, no. 8, 1984, 1527-1533.

298. Dianov, Ye.M.; Karasik, A.Ya.; Mamyshev, P.V.; Onishchukov, G.I.; Prokhorov, A.M.; Stel'makh, M.F.; Fomichev, A.A. (IOF, MFTI). A 100-fold compression of picosecond optical parametric oscillator pulses in the 1.5-1.65 um spectral range. ZFPRA, v. 40, no. 2, 1984, 148-150.

299. Gandel'man, G.M.; Itskovich, O.Yu.; Kondratenko, P.S.; Sobolev, S.S.; Stepanov, B.M.; Chalkin, S.F. (VNIIOFI). The distortion of time characteristics during parametric up-conversion of ultra-short laser pulses. KVEKA, no. 7, 1984, 1348-1352.

300. Gorbunov, V.A. (VNIPKTIEO). The formation and amplification of ultrashort optical pulses during opposed stimulated scatterings. KVEKA, no. 8, 1984, 1581-1592.

301. Gorbunov, V.A.; Ivanov, V.B.; Papernyy, S.B.; Startsev, V.R. (). Time compression of optical pulses during stimulated back-scattering. IANFA, no. 8, 1984, 1580-1590.

302. Idiatulin, V.S. (VNIFTRI). Light-induced gratings in a medium with two-photon absorption. KVEKA, no. 8, 1984, 1655-1657.

303. Kandidov, V.P.; Ognev, L.I.; Platonenko, V.T. (MGU). Effect of diffraction and of nonresonant absorption on the formation of an ultrashort pulse in a CO2 amplifier. KVEKA, no. 8, 1984, 1617-1621.

304. Kovalev, A.A.; Levashkevich, L.V. (). Nano- and subnanosecond pulse generation with a tunable interval of the pulse sequence. CRNTShSL. Materialy. Minsk, 1983, 72-74. (RZFZA, 84/8L939).

305. Pashinin, P.P.; Raspopov, S.F.; Serdyuchenko, Yu.N.; Sukhodol'skiy, A.T. (IOF). The generation of picosecond pulses in a synchronously pumped dye laser with lumped-distributed feedback. KVEKA, no. 7, 1984, 1498-1499.

306. Piskarskas, A.; Sirutkaytis, V.; Yuozapavichyus, A.; Yankauskas, A. (VilGU). The stability of the time and energy parameters of a picosecond lanthanum beryllate laser. KVEKA, no. 7, 1984, 1487-1490.

307. Varnavskiy, O.P.; Kirkin, A.N.; Leontovich, A.M.; Mirzoyan, R.G.; Mozharovskiy, A.M.; Solomatin, I.I.; Sidoruk, N.V. (FIAN). Optimizing the energy and brightness parameters of solid state lasers with self mode-locking. IANFA, no. 7, 1984, 1359-1363.

J. CRYSTAL GROWING

K. THEORETICAL ASPECTS OF ADVANCED LASERS

308. Gluskin, Ye.S.; Il'inskiy, P.P.; Kezerashvili, G.Ya.; Kulipanov, G.N.; Pindyurin, V.F.; Skrinskiy, A.N.; Sokolov, A.S. (IYaFSOAN). Study on radiaton from a spiral undulator mounted in a VEPP-2M accumulator as a source for x-ray microscopy and holography. IYaFSOAN. Preprint, no. 83-145, 1983, 14 p. (KNLTA, 31/84, 26298).

309. Grigor'yev, V.P.; Koval', T.V. (ToPI). Stimulated emission from a confined e-beam under conditions of cyclotron resonance with a combination wave pumped by an e-m wave. VINITI. Deposit, no. 2944-84, 7 May 1984, 17 p. (RZFZA, 84/8L776).

310. Kazantsev, A.P.; Sokolov, V.P (ITFL). Interaction of electrons in a light field. ZETFA, v. 86, no. 3, 1984, 896-905.

311. Nusinovich, G.S. (). Fourth All-Union Seminar on High-Frequency Relativistic Electronics, Moscow, 24-26 Jan 1984. IVYRA, no. 7, 1984, 851,872,879,912,947.

312. Yakovlev, V.S.; Dzedolik, I.V.; Kulish, V.V.; Motina, V.G.; Kokhman'ski, S.S. (IED). Generation of energy by relativistic electrons moving in a field of two e-m waves in the presence of a longitudinal magnetic field. IED. Preprint, no. 321, 1984, 41 p. (RZFZA, 84/8L778).

L. GENERAL LASER THEORY

313. Aleshkevich, V.A.; Lebedev, S.S.; Matveyev, A.N. (MGU). Transformation of the spatial statistics for a partially coherent beam during non-steady-state thermal self-action. KVEKA, no. 7, 1984, 1459-1461.

314. Babichenko, S.M.; Kandidov, V.P. (MGU). The spatial statistics of pulsed, partially coherent radiation in a medium with thermal nonlinearity. KVEKA, no. 7, 1984, 1372-1378.

315. Galkin, A.L.; Korobkin, V.V. (IPM). Design of optical amplifiers allowing for inhomogeneous broadening of the luminescence line. IPM. Preprint, no. 21, 1984, 20 p. (KNLTA, 32/84, 27234).

316. Golubev, Yu.M.; Sokolov, I.V. (LGU). Antibunching of photons in a source of coherent light and noise suppression in photorecording. ZETFA, vol. 87, no. 2, 408-416.

317. Goncharenko, A.M.; Shapovalov, P.S. (). The theory of a rotating, second harmonic light beam. ZPSBA, vol. 41, no. 1, 1984, 147-149.

318. Kaliteyevskiy, N.I. (LGU). Classroom experiments: the basis of a modern course in general physics. LGU. Vestnik, no. 4, 1984, 77-79. (RZFZA, 84/7A111).

319. Korotayev, A.G.; Poyzner, B.N.; Pokrovskiy, M.P. (). Classification of sources of electromagnetic stimulated emission. VINITI. Deposit, no. 2170-84, 10 Apr 1984, 45 p. (DERUD, 8/84, 578).

320. Laptev, V.D.; Reutova, N.M.; Sokolov, I.V. (LGU). The initial stage of a superradiation pulse during delayed or prolonged excitation of the material. KVEKA, no. 8, 1984, 1646-1650.

321. Matorin, I.I.; Khanin, Ya.I. (). Self-stochastic phenomena in lasers. Lektsii po elektronike SVCh i radiofizike. Zimnaya shkola-seminar inzhenerov, 6th. Book 2. Saratov, 1983, 23-31. RZFZA, 84/7Zh7).

322. Minkov, I.M. (). Bleaching of the boundary between isotropic media for two wavelengths. OPSPA, v. 57, no. 2, 1984, 275-281.

323. Miroshnichenko, G.P. (). Resonant optical Kerr effect. OPSPA, v. 57, no. 1, 1984, 124-127.

324. Nesterikhin, Yu.Ye.; Zolotukhin, Yu.N.; Livshits, Z.A. (). Automation: Summary of the decade. AVMEB, no. 4, 1984, 3-14.

325. Oleynik, V.P.; Belousov, I.V. (IPFANM). Quantum processes in strong electromagnetic fields. Chapter in book: Problemy kvantovoy elektrodinamiki vakuuma, dispergiruyushchikh sred i sil'nykh poley (Problems of quantum electrodynamics of a vacuum, dispersing media and strong fields). Kishinev, Shtiintsa, 1983, 186-242. (TVKED, 34/84, 59).

326. Orayevskiy, A.N. (FIAN). Progress in developing coherence in lasers. IANFA, no. 8, 1984, 1600-1610.

327. Penkin, Nikolay Petrovich, in honor of his 70th birthday. OPSPA, v. 57, no. 2, 1984, 373.

328. Pestov, E.G. (FIAN). Theory of wave interaction in a magnetic field of arbitrary direction. KEVKA, no. 8, 1984, 1592-1596.

329. Petrov, D.V. (IFPSOAN). The effect of radiation processes on the collinear acoustic and optical interaction of directed modes. KVEKA, no. 7, 1984, 1403-1411.

330. Pilipovich, V.A.; Morgun, Yu.F. (IEANBel). Solid-state lasers. CRNTShSL. Materialy. Minsk, 1983, 57-68. (RZFZA, 84/8L801).

331. Rozanov, N.N.; Smirnov, V.A. (). Resonant excitation of a quantum anharmonic oscillator. ZETFA, v..86, no. 4, 1984, 1180-1192.

332. Samson, A.M. (IFANB). Equilibrium states, self-excited oscillation, polystability and hysteresis phenomena in lasers with a bleachable filter. IFANB. Preprint, no. 321, 1984, 55 p. (RZFZA, 84/8L786).

333. Sholin, G.V. (). Fourth International Symposium on Gas Flow-Through and Chemical Lasers. AENGA, v. 54, no. 6, 1983, 435-437. (TVKED, 34/84, 295).

334. Sobolev, Nikolay Nikolayevich, in honor of his 70th birthday. OPSPA, v. 57, no. 2, 1984, 374.

335. Tsarev, P.P. (). Thermal focusing in solid-state lasers with waveguide resonators. Voprosy radioelektroniki. Seriya Obshchiye voprosy radioelektroniki, no. 5, 1983, 110-114. (TVKED, 34/84, 803).

336. Ustinov, G.N. (StavPI). Approach to the matching of Gaussian beams under longitudinal laser pumping. VINITI. Deposit, no. 1650-84, 26 Mar 1984, 22 p. (RZFZA, 84/7L977).

337. Yelov, V.V.; Cherepenin, N.D. (KaGU). The divergence of radiation for two-coupled apertures with elliptical and rectangular profiles. KVEKA, no. 7, 1984, 1437-1442.

II. LASER APPLICATIONS

A. BIOLOGICAL EFFECTS

338. Babayev, O.G.; Babayev, Kh.B. (TurkGMI). Method for treating Oriental sore. OTIZD, no. 26, 1984, 1102613.

339. Kudrna, B.; Malek, B. (). Health safety principles in working with lasers. Bezpecnost a hygiena prace [in Czech], no. 1, 1984, 10-11. (RZFZA, 84L1084).

340. Putintsev, V.I.; Kalugin, V.V.; Sheynina, K.P. (TsGMI). Method for treating patients with nonspecific inflammations of lungs. OTIZD, no. 26, 1984, 1102614.

341. Skobelkin, O.K.; Brekhov, Ye.I.; Litvin, G.D.; Safronov, A.M.; Chernov, V.F. (TsNILChGUMinzdrav). Surgical clamp for the pancreas during laser sectioning. OTIZD, no. 31, 1984, 1109147.

B. COMMUNICATIONS SYSTEMS

342. Alekseyev, Ye.B.; Likin, A.A.; Gofman, A.M.; Zarkevich, Ye.A.; Muradyan, A.G.; Sokhranskiy, S.S.; Tarasov, V.A. (). Device for controlling lightguide communication lines. OTIZD, no. 42, 1983, 1054914. (RZRAB, 84/7Ye314).

343. Andriyesh, A.M.; Bykovskiy, Yu.A.; Borodakiy, Yu.V.; Ponomar', V.V.; Smirnov, V.L. (MIFI). Polarization properties of multi-channel optical fibers in the IR range. KVEKA, no. 8, 1984, 1690-1692.

344. Anikin, V.I.; Olevskiy, S.S.; Terichev, V.F. (). Study of As(subx)Se(sub(1-x) films for use in integrated optics at 10.6 microns wavelength. ZPSBA, vol. 41, No. 2, 1984, 259-263.

345. Bakhmend, A.B.; Zubkov, V.P.; Verbitskiy, V.D.; Glagolev, S.F. (). Use of fiber lightguides for transmitting measurement information. EKSTA, no. 3, 1984, 63-66. (RZRAB, 84/Ye254).

346. Barabash, P.A.; Emdin, V.S. (EIS). Optical spatial commutator. OTIZD, no. 48, 1983, 1064259. (RZRAB, 84/Ye215).

347. Bergmann, H. (). Optical communications technology in the 1.3 um wavelength range. BITOA, no. 2, 1984, 53-56,52,64. (RZRAB, 84/7Ye245).

348. Bogatyrev, V.A.; Bubnov, M.M.; Vechkanov, N.N.; Gur'yanov, A.N.; Dianov, Ye.M.; Semenov, S.L. (IOF, IKhAN). Effect of water on the strength of fiber lightguides. KVEKA, no. 7, 1984, 1467-1469.

349. Bukhinnik, A.Yu.; Kushnir, V.F. (). Selection of linear codes for digital fiberoptic communications lines. EKVZA, no. 4, 1984, 22-25. (RZRAB, 84/Ye236).

350. Dmitriyev, A.L. (). Hologram element of a demultiplexer for a lightguide communications system with spectral compression of channels. KVEKA, no. 7, 1984, 1352-1357.

351. Donchuk, S.D. (). Laser communications over power lines. Elektronnyye pribory i skhemy dlya eksperimental'noy fiziki. MIFI. Moskva, Energoatomizdat, 1983, 49-53. (TVKED, 34/84, 390).

352. Drazhev, M.; Stoykov, V.; Khristov, L.; Atanasov, D. (). Lightguide system for transmission of telephone signals. Radio, televiziya, elektronika [Bulgaria], no. 3, 1984, 8-9. (RZRAB, 84/Ye234).

353. Fedorov, V.B.; Mityakov, V.G. (). Optimization of a light beam with a Gaussian intensity distribution in diffraction-limited optical systems for transmitting light energy. OPSPA, v. 57, no. 1, 1984, 117-123.

354. Finak, J.; Jerominek, H.; Opilski, Z. (). Some optical properties of planar borosilicate glass waveguides formed in a molten KNO3 bath. OPAPB, no. 2, 1983, 149-157. (RZFZA, 84/7L788).

355. Gachechiladze, G.G.; Zguladze, M.G.; Mestvirishvili, A.M.; Sagaradze, V.R. (TbGU). Coherence of laser radiation passing through a polymer self-focusing fiber lightguide. TbGU. Trudy, no. 242, 1983, 173-188. (RZFZA, 84/7L43).

356. Goncharenko, I.A.; Shevchenko, V.V. (IRESOAN). The critical frequencies of anisotropic dielectric waveguides. KVEKA, no. 8, 1984, 1694-1696.

357. Hofman, M.; Nezval, J. (). Integrated optical communications structure with variable characteristics. ELKCA, no. 2, 1984, 114-120. (RZRAB, 84/7Ye246).

358. Jerominek, H.; Opilski, Z.; Kadziela, J. (). Some elements of integrated optics circuits based on planar gradient glass waveguides. OPAPB, no. 2, 1983, 159-168. (RZFZA, 84/7L782).

359. Kolesnikov, P.M.; Rudenok, I.P. (). Waves in active graded-index fiber lightguides. Teplo- i massoperenos: eksperimental'nyye i teoreticheskiye issledovaniya. Minsk, 1983, 55-57. (RZFZA, 84/7L51).

360. Kolpashchikov, V.L.; Krivosheyev, Yu.K.; Shnip, A.I. (). Calculating the parameters of a highly efficient process for fabricating blanks for optical fibers. Energoperenos v nelineynykh, neodnorodnykh i neravnovesnykh sredakh. Minsk, 1984, 146-153. (RZFZA, 84/7Zh328).

361. Kubicek, Z. (). Reliability and economic value of digital optical telecommunications lines. SLOZA, no. 2, 1984, 76-83. (RZRAB, 84/7Ye255).

362. Kuchar, A. (). Lightguide communications system using wave multiplex: its properties and application. ELKCA, no. 2, 1984, 165-177. (RZRAB, 84/Ye237).

363. Kuzin, Ye.A.; Petrov, M.P.; Davydenko, B.Ye. (). Wavefront reversal by extended-length optical fibers. PZTFD, no. 14, 1984, 833-837.

364. Kuznetsov, A.A. (IOF). Prospects for remote high-speed optical image transmission over an individual fiber lightguide by spectral multiplexing. IOF. Preprint, no. 195, 1984, 13 p.

365. Lapides, A.A. (). TV raster filtration using an extended white light source. TKTEA, no. 8, 1984, 43-45.

366. Mashkovtsev, B.M.; Fal'kovskiy, O.I. (). Radiation losses from a fracture in a planar lightguide. Teoriya peredachi informatsii po kanalzm svyazi. Leningrad, 1984, 8-15. (RZRAB, 84/Ye196).

367. Morozov, V.N.; Shidlovskiy, V.P. (FIAN). Noise and nonlinear signal distortions in fiberoptic systems (review). KVEKA, no. 7, 1984, 1301-1313.

368. Neckar, I.; Kucharski, M. (). Measurement of defects in optical cables. SDTEA, no. 3, 1984, 91-92. (RZRAB, 84/Ye191).

369. Nezval, J. (). Graded-index dielectric waveguide with periodicity. ELKCA, no. 2, 1984, 121-126. (RZRAB, 84/7Ye188).

370. Polukhin, A.T. (). Geometrooptic characteristics of a monochromatic wave in an inhomogeneous single-mode fiber lightguide. OPSPA, v. 56, no. 3, 1984, 555-557. (RZFZA, 84/8L33).

371. Preslenev, L.N. (KPIA). Transmission coefficient for an acoustooptic delay line. IVUZB, no. 7, 1984, 28-32.

372. Red'ko, V.P.; Voytenkov, A.I. (IFANB). Method for obtaining planar waveguides on dielectric substrates. OTIZD, no. 37, 1982, 866953. (RZRAB, 84/7Ye218).

373. Romaniuk, R.; Jedrzejewski, K.; Darek, B. (). Multiwave lightguide transmission. PZTKA, no. 10, 1983, 291-296,304. (RZRAB, 84/Ye243).

374. Rybakov, V.S. (MEIS). Intra-objective digital fiberoptic communications line with an integrated photodetector. Informsvyaz'. Deposit, no. 362sv-84, 24 Feb 1984, 46 p. (DERUD, 7/84, 267).

375. Semenov, N.A. (). Fiber lightguides with metal coatings for optical cables. EKVZA, no. 4, 1984, 19-22. (RZRAB, 84/Ye187).

376. Sidorov, A.S. (). Circuit engineering for using LED's in nonlinear devices in the nanosecond range. Poluprovodnikovaya elektronika v tekhnike svyazi, no. 24, Moskva, Radio i svyaz', 1984, 75-83.

377. Szustakowski, M.; Jachura, P. (). Effect of the intramode dispersion on the harmonic signal transmission in a multimode fiber lightguide. OPAPB, no. 3, 1983, 239-245. (RZFZA, 84/8L41).

378. Tarasov, V.V.; Zhilkin, A.M.; Lysov, A.B.; Shereshev, A.B.; Zapryagayeva, L.A.; Sveshnikova, I.S. (MIIGAiK). Method for evaluating optical systems using applied variances. IVUBA, no. 8, 1984, 80-85.

379. Vitovsky, O.; Matyasek, Vit. (). Device for fabricating dense three-dimensional fiber bundles. Author's certificate Czechoslovakia, no. 213082, 1 Apr 1984. (RZRAB, 84/Ye287).

380. Volotovskaya, N.K. (). Minimum magnitude of the spread of group velocities in a multimode fiber. Teoriya peredachi informatsii po kanalam svyazi. Leningrad, 1984, 16-19. (RZRAB, 84/Ye161).

381. Wagenknecht, Z. (). Form for fusing a bundle of optical fibers. Author's certificate Czechoslovakia, no. 222795, 1 Feb 1984, (RZRAB, 84/Ye199).

382. Yanchenko, S.N.; Prokhorov, V.P.; Veligodskiy, M.A. (KubU). Efficiency of a waveguide modulator as a function of its geometric sizes. VINITI. Deposit, no. 2913-84, 7 May 1984, 12 p. (RZFZA, 84/8L616).

383. Zhivotovskiy, L.A.; Tsikin, Yu.A. (LETI). Optical device for classifying radio signals. OTIZD, no. 26, 1984, 1103183.

C. BEAM PROPAGATION

1. Theory

384. Babichenko, S.M.; Kandidov, V.P. (). Spatial statistics of a partially coherent wave in a randomly inhomogeneous cubic medium. IVYRA, no. 1, 1984, 56-64. (RZFZA, 84/7L19).

385. Bejtullakhu, R.; Janikijevik, Lj.; Mozer, J.; Jonoska, M. (). New interpretation of the Linnik interference experiment, based on diffraction of Gaussian spherical incident waves. Fizika [Yugoslavia], no. 1 [in English], 1984, 95-106. (RZFZA, 84/8L16).

386. Bol'shov, L.A.; Kirichenko, T.K.; Likhanskiy, V.V.; Persiantsev, M.I.; Sokolova, L.K. (). Effect of transverse inhomogeneities on the propagation of simultons (double-frequency light pulses) in three-level media. ZETFA, v. 86, no. 4, 1984, 1240-1248.

387. Golubev, Yu.M.; Plimak, L.I. (LGU). Evidence of the corpuscular nature of light scattered by equilibrium fluctuations in a resonant medium. ZETFA, v. 86, no. 2, 1984, 431-441.

388. Kalechits, V.I.; Nakhutin, I.Ye.; Poluektov, P.P. (). Experimental study on light scattering by fluctuations in the shape of liquid droplets. ZTEFA, no. 8, 1984, 1599-1604.

389. Kandidov, V.P.; Shlenov, S.A. (MGU). Statistics of intensity fluctuations during self-modulation of a noise pulse. VMUFA, no. 3, 1984, 51-54. (RZFZA, 84/8L765).

390. Khalturin, V.I. (MGI). Precise solutions for the transfer equation in a deep turbid medium. Part 1. Delta-hyperbolic scattering index. VINITI. Deposit, no. 2704-84, 26 Apr 1984, 10 p. (RZFZA, 84/8L22).

391. Kielich, S.; Tanas, R. (). Quantum fluctuations during the propagation of light through isotropic media with self-induced optical activity. IANFA, no. 3, 1984, 518-520. (RZFZA, 84/7L1203).

392. Mel'nikov, L.A.; Dukhovnikov, N.A.; Polushkina, Ye.M. (). Propagation of quasi-planar monochromatic waves in an inhomogeneous amplifying medium. Issledovaniya po nelineynoy optike i spektroskopii: spektroskopiya molekul, primesnykh tsentrov i lazernykh sred. SGU. Saratov, 1983, 117-122. (RZFZA, 84/8L993).

393. Rubanov, V.S.; Svirina, L.P.; Severikov, V.N. (). Effect of photoinduced anisotropyy in a gas medium on the characteristics of radiation propagating in it. VINITI. Deposit, no. 2703-84, 26 Apr 1984, 10 p. (RZFZA, 84/7L1202).

394. Zel'dovich, B.Ya.; Shkunov, V.V. (IPMe). "Speklon". IANFA, no. 8, 1984, 1545-1556.

2. Propagation in the Atmosphere

395. Agishev, R.R. (). Effect of background illumination on the characteristics of optical detectors for a laser atmospheric probing system. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 269-272.

396. Agishev, R.R.; Il'in, G.I.; Pikulev, A.N.; Pol'skiy, Yu.Ye.; Ternovskiy, V.T.; Filippov, V.L. (). Laser measuring system for studying the atmosphere. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 345-348.

397. Agishev, R.R.; Il'in, G.I.; Pol'skiy, Yu.Ye.; Rusyayev, N.N. (). Study on background characteristics of a lidar photodetector during strobed operation. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 266-268.

398. Aksenov, V.P. (). Spatial coherence of a spherical wave field reflected in a turbulent atmosphere. OPSPA, v. 57, no. 1, 1984, 128-134.

399. Andreyev, Yu.M.; Voyevodin, V.G.; Gribenyukov, A.I.; Zyryanov, O.Ya.; Ippolitov, I.I.; Morozov, A.N.; Sosnin, A.V.; Khmel'nitskiy, G.S. (). Absorption device based on a frequency-doubled CO2 laser for measuring the concentration of gases. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 277-280.

400. Andrusenko, A.M.; Kopyl, V.K; Prokopov, A.V.; Ponomarev, V.I. (). Problems in improving the accuracy of laser rangefinding measurements carried out in a turbulent atmosphere. CVNTKMOI, Khar'kov, 23-25 Nov 1983. Tezisy dokladov. Khar'kov, 1983, pp not given. (TVKLD, 34/84, 271).

401. Arshinov, Yu.A.; Bobrovnikov, S.M.; Nadeyev, A.I.; Shelevoy, K.D. (). Evaluating the secondary effects in a photomultiplier during measurement of atmospheric parameters. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 280-282.

402. Artemov, V.M.; Artemov, Ye.M.; Visheratin, K.N.; Sizon, N.I. (). Effect of atmospheric gas composition and weather conditions on measuring ammonia content with a CO2 laser. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 356-358.

403. Ashkinadze, D.A.; Radyuk, I.M. (). Study on statistical rules for the behavior of back-scattered laser signals under smoky conditions. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 114-116.

404. Astafurov, V.G. (). Measuring wind velocity by a correlation method during the detection of optical signals in a photon counting system. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 11-14.

405. Astafurov, V.G.; Kurapov, Yu.M. (). Evaluating the efficiency of an optical wind velocimeter in a closed numerical experiment. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 15-18.

406. Balandin, S.F.; Kopytin, Yu.D. (). Nonlinear back-scattering of laser pulses in a semi-dispersed aerosol model. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 23-25.

407. Balandin, S.F.; Kopytin, Yu.D.; Nebol'sin, M.F.; Pogodayev, V.A.; Chaporov, D.P.; Shishigin, S.A. (). Dynamics of atmospheric illumination during the operation of a spectrochemical lidar initiated by the concentration of macro- and microscopic breakdown of aerosols. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 258-261.

408. Balandin, S.F.; Zuyev, V.Ye.; Ivanov, Yu.V.; Kopytin, Yu.D.; Mironov, V.I. (). Study on the effect of electrical field generation before and during optical breakdown, and its use in diagnosing the parameters of a laser beam channel. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 19-22.

409. Balandin, V.S.; Belozerov, B.K. (). Analysis of the noise rejection of a multi-element signal detector during bistatic laser probing of the atmosphere. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 314-317.

410. Baldenkov, G.N.; Dul'kin, V.M.; Milen'kiy, M.N.; Kozintsev, V.I.; Goshokov, M.M. (). Test results of a lidar device for measuring oblique atmospheric transparency. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 91-92.

411. Baldenkov, G.N.; Dul'kin, Vs.M.; Dul'kin, Vy.M.; Smirnov, V.V.; Milen'kiy, M.N.; Konstantinov, B.A.; Kozintsev, V.I.; Zharov, B.P.; Rybakov, Ye.Ye. (). Lidar for measuring atmospheric transparency. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 349-352.

412. Baldenkov, G.N.; Kozintsev, V.I.; Kovalev, V.A.; Nikiforov, V.G. (). Systematic errors in a lidar attenuation indicator using an integral method. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 329-331.

413. Balin, Yu.S.; Bayrashin, G.S.; Burkov, V.V.; Guber, G.A.; Nadeyev, A.I.; Razenkov, I.A. (). The LOZA-4 mobile aerosol lidar. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 364-367.

414. Balin, Yu.S.; Burkov, V.V.; Razenkov, I.A.; Samokhvalov, I.V.; Naumochkin, A.I.; Targonskiy, S.N.; Shestakov, V.G. (). Lidar study on the propagation of the aerosol formation process. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 53-57.

415. Balin, Yu.S.; Burkov, V.V.; Razenkov, I.A.; Samokhvalov, I.V. (). Study on statistical characteristics of lidar signals. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 49-52.

416. Banakh, V.A.; Mironov, V.L.; Smalikho, I.N. (). Optical reflection in a turbulent atmosphere under conditions involving temperature induced inhomogeneities in the refractive index. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 41-44.

417. Baranov, P.A.; Glagolev, V.S.; Kozintsev, V.I.; Novoselov, A.N.; Sil'nitskiy, A.F. (). Study on the stability of the spectral parameters of a differential absorption lidar for checking the nitrogen peroxide concentration in the atmosphere. ZPSBA, vol. 41, no. 2, 1984, 225-229.

418. Baranov, P.A.; Glagolev, V.S.; Yengoyan, T.M.; Kozintsev, V.I.; Nikiforov, V.G.; Novoselov, A.N.; Sil'nitskiy, A.F. (). Production lidar for detecting nitrogen dioxide in the atmosphere. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 338-340.

419. Barykin, V.N.; Martynenko, O.G. (). Laser probing of inhomogeneous turbulent paths in the atmosphere. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 67-70.

420. Baydalov, S.I.; Mizun, Yu.G. (). Lidar measurement of the dynamics of the lower atmosphere at high latitudes. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 93-96.

421. Baykov, Yu.P.; Kravets, L.V.; Marinushkin, V.N. (). Lidar for measuring atmospheric temperature. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 368-371.

422. Belen'kiy, M.S.; Lukin, I.P.; Mironov, V.L. (). Pulsed probing of refraction channels in a turbulent atmosphere. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 33-36.

423. Belen'kiy, M.S.; Lukin, I.P.; Mironov, V.L.; Shelekhov, A.P. (). Remote determination of the structural characteristics of the refractive index in refraction channels. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 37-40.

424. Belen'kiy, M.S.; Mironov, V.L.; Pokasov, V.V.; Safonova, N.V. (). Space-time structure of lidar signal fluctuations. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 325-328.

425. Belokhvostikov, A.V.; Orlov, V.M.; Samokhvalov, I.V.; Yudovskiy, A.B. (). Compositional model of a multispectral image. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 67-69.

426. Belov, M.L.; Orlov, V.M. (). Monitoring the characteristics of a turbulent atmosphere. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 45-47.

427. Belov, M.L.; Orlov, V.M.; Samokhvalov, I.V. (). Structure of signals scattered in the surface boundary layer. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 64-66.

428. Belov, N.N.; Lushnikov, A.A.; Negin, A.Ye.; Pakhomov, A.V. (). Optical breakdown under the effect of TEA CO2 laser radiation in a "two-dimensional aerosol." CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 291-293.

429. Belov, N.N.; Negin, A.Ye. (). Optical breakdown in fog under the effect of microsecond CO2 laser radiation. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 352-355.

430. Belov, V.F.; Borovoy, A.G.; Vagin, N.I.; Volkov, S.N. (IOA). Small-angle method in single and multiple scattering. IFAOA, no. 3, 1984, 323-327.

431. Berezhnaya, V.P.; Babenko, V.A.; Milen'kiy, M.I.; Men'shakov, V.S.; Shermergor, T.D. (). Secondary scattering flux in a lidar system with noncoincident transmitter and receiver optical axes. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 147-150.

432. Berezovskiy, V.V.; Gergel', I.V.; Igumnov, Ye.A.; Kornilov, S.T.; Petrishchev, V.A.; Protsenko, Ye.D.; Splavnik, Yu.V.; Chirikov, S.N. (). Airborne ammonia gas analyzer. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 281-283.

433. Blinov, N.S.; Yefremova, N.P.; Zharov, V.Ye. (). Comparison of various methods for determining the time and coordinates of the pole. Problemy astrometrii. CVAstKon, 22nd, Moskva, 1-5 Jun 1981. GAISh. MGU. Moskva, 1984, 129-132.

434. Borisov, N.N.; Zemlyanov, A.A.; Pal'yanov, P.A. (). Optimizing a photomultiplier in the problem of Rayleigh scattering of light pulses. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 264-266.

435. Borisova, N.F.; Osipov, V.M.; Pavlov, N.I. (). Evaluating the transmissivity function for quasi-monochromatic CO2 laser radiation. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 269-271.

436. Borovoy, A.G.; Ivonin, A.V. (). Information content in Fourier speckle. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 57-58.

437. Budak, V.P.; Savenkov, V.I. (MEI). Transfer of an optical image in active pulsed ranging systems. MEI. Trudy, no. 602, 1983, 24-30. (RZFZA, 84/7L911).

438. Bukin, O.A.; Stolyarchuk, S.Yu.; Tyapkin, V.A.; Shevtsov, B.M. (). Feasibility of statistically describing optical back-scattering in the atmosphere. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 87-90.

439. Buldakov, M.A.; Ippolitov, I.I.; Klimkin, V.M.; Matrosov, I.I.; Mitchenkov, V.M. (). Scattering of 248.5 nm radiation by the basic gas components of the atmosphere over the 250-283 nm spectral region. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 338-340.

440. Buldakov, M.A.; Ippolitov, I.I.; Klimkin, V.M.; Matrosov, I.I.; Mitchenkov, V.M. (). Study on the spectral distribution and attenuation kinetics of fluorescence in water vapor excited by excimer laser radiation. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 324-326.

441. Burakov, S.D.; Godlevskiy, A.P.; Kopytin, Yu.D.; Korotchenko, Ye.A.; Lazarev, S.V.; Soldatkin, N.P. (). Precision gas analyzer based on solid state lasers. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 353-355.

442. Burakov, S.D.; Kopytin, Yu.D. (). Narrowband lasing kinetics under the effect of a modulated external signal. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 78-81.

443. Burkov, V.V. (). Four-channel analog-digital converter with multiplexing. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 306-307.

444. Burkov, V.V.; Bayrashin, G.S. (). Two-channel analog-digital converter for lidar signals. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 308-309.

445. Bushuyev, V.D.; Naats, I.E. (). Some characteristics of optical reversal during the scattering of light, using a histogram method. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 183-187.

446. Buzdin, A.A.; Leble, S.B.; Maslova, M.N. (). Evaluating the contribution of multiple scattering in a lidar signal. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 179-182.

447. Chaykovskiy, A.P. (IFANB). A statistical analysis of the optical characteristics of a tropospheric aerosol under desert conditions. IFAOA, no. 8, 1984, 725-732.

448. Chaykovskiy, A.P.; Shcherbakov, V.N. (). Linear evaluation of the integral parameters of aerosol microstructures. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 211-214.

449. Demin, V.V.; Donchenko, V.A. (). Feasibility of using holography in calibrating laser probing of aerosol media. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 246-248.

450. Derbisalin, M.A.; Livshits, G.Sh.; Tokarev, O.D. (). Regression model for the optical characteristics of low-lying city smoke. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 105-108.

451. Derbisalin, M.A.; Tokarev, O.D.; Toropova, T.P. (). Lidar study on low-lying city smoke. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 101-104.

452. Donchenko, V.A.; Kistenev, Yu.V.; Lugin, E.V. (). Time delay of a thermal radiation pulse during probing of an absorbing medium. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 320-323.

453. Dravskikh, A.F.; Finkel'shteyn, A.M.; Umarbayeva, N.D. (). Radioastrometric possibilities for interferometers with ultra-long baselines. Problemy astrometrii. CVAstKon, 22nd, Moskva, 1-5 Jun 1981. GAISh. MGU. Moskva, 1984, 22-40.

454. Gabelko, L.B.; Lyubovtseva, L.S. (). Optical characteristics of city aerosols. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 294-297.

455. German, A.I.; Kushmatov, O.E.; Tikhonov, A.P.; Tyabotov, A.Ye. (). Space and time variations in the optical characteristics of supercooled fog in an artificial scattering zone. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 151-154.

456. German, A.I.; Zontov, L.B.; Tikhonov, A.P.; Tyabotov, A.Ye. (). Results of lidar studies on the upper boundaries of convective clouds during weather modification. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 160-162.

457. Glazov, G.N.; Dubyagin, V.M. (). Numerical experiment on the observation of non-standard gas concentrations using a Raman lidar. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 305-308.

458. Glazov, G.N.; Dubyagin, V.M. (). Observation of non-standard gas concentrations using a Raman lidar. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 300-304.

459. Glazov, G.N.; Dubyagin, V.M.; Oshlakov, V.K. (). Nonparametric detection of atmospheric events using optical signals. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 321-324.

460. Godlevskiy, A.P.; Ivanov, Yu.V.; Kopytin, Yu.D.; Korol'kov, V.A.; Soldatkin, M.P. (). Aerosol spectrochemical lidar based on a pulsed CO2 laser. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 360-363.

461. Godlevskiy, A.P.; Kopytin, Yu.D.; Lazarev, S.V. (). Study on homodyne and heterodyne methods of intracavity laser detection of weak IR signals. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 73-77.

462. Godlevskiy, A.P.; Kopytin, Yu.D.; Sharin, P.P. (). Study on the characteristics of an intracavity reception lidar for remote gas analysis of the lower atmosphere. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 356-359.

463. Gordov, Ye.P.; Ponurovskiy, Ya.Ya.; Fazliyev, A.Z. (). Evaluating the effect of absorption in the atmosphere during use of a two-cavity probing method. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 365-366.

464. Il'ichevskaya, I.P.; Nolle, P.M. (). Gain variation in a regulated photomultiplier photodetector, from the effect of nonstationary optical fluxes. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 273-276.

465. Il'ichevskaya, I.P.; Nolle, P.M. (). Study on the reaction of a single electron photomultiplier to pulsed illumination. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 277-279.

466. Ivanenko, B.P. (). Interpretation of data from laser probing of ozone concentrations from outside the atmosphere. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 200-203.

467. Ivanenko, B.P. (). Numerical model for the problem of laser probing of atmospheric ozone. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 196-199.

468. Ivanov, A.P.; Chaykovskiy, A.P.; Shcherbakov, V.N. (). Reconstructing the integral microphysical parameters of aerosols from the coefficient of back-scattering. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 207-210.

469. Ivonin, A.V.; S"yedin, V.Ya. (). Degree of symmetry in Fourier speckle as a function of the properties of the probing medium. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 54-56.

470. Kalayda, V.T.; Khamarin, V.I. (). Checking the normality of the probability density for the partial presssure of ozone. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 313-316.

471. Kallistratova, M.A.; Kon, A.I. (). Contemporary view on the radioacoustic atmospheric probing method. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 82-91.

472. Kallistratova, M.A.; Shamanayeva, L.G. (). Acoustic probing of the surface boundary layer. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 103-113.

473. Katayev, M.Yu.; Mitsel', A.A. (). Identification of a multi-component gas mixture in absorption gas analysis. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 331-333.

474. Kaul', V.A.; Krasnov, O.A.; Samokhvalov, I.V.; Shelevoy, V.D. (). The "Stratosfera-IM" multibeam polarization aerosol lidar. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 58-60.

475. Kochanov, K.N.; Maksimtsev, S.A.; Polyakova, Ye.N.; Chistyakov, A.D.; Yunoshev, L.S. (). Statistical analysis of atmospheric corrections for laser observations of satellites. IZTEA, no. 1, 1984, 28-29.

476. Kokorina, S.V.; Molebnyy, V.V. (). Interpretation of turbulent fluctuations in the cross-sectional intensity distribution of radiation in a beam using an isophot center of gravity vector hodograph. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 70-72.

477. Kolosov, V.V.; Kuznetsov, M.F. (). Beam-like approximation to the solution of the transfer equation for probing radiation. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 327-330.

478. Kopytin, Yu.D.; Mal'tseva, G.A. (). Specifications for monitoring flooded smoke particles using high energy laser pulses. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 372-376.

479. Kopytin, Yu.D.; Svishchenko, V.V. (). Laser spark in a dusty atmosphere (review). VINITI. Deposit, no. 2623-84, 25 Apr 1984, 68 p. (RZFZA, 84/7G257).

480. Korshunov, V.A. (). Comparison of the results of evaluating back-scattering from aerosol media using a small angle approximation, asymptotic correlations and the Monte Carlo method. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 218-221.

481. Kostin, B.S. (). Determining the complex refractive index for an aerosol from variation in optical characteristics over a narrow spectral region. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 188-191.

482. Kostin, B.S. (). Determining the complex refractive index for an aerosol from the coefficient of attenuation and back-scattering. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 192-195.

483. Kostko, O.K.; Kashentsev, B.P.; Tulinov, K.V. (). Lidar probing of stratospheric aerosols. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 77-79.

484. Kostko, O.K.; Kruchenitskiy, G.M.; Tulinov, K.V. (). Calibrating lidar observations of stratospheric aerosols. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 74-76.

485. Kostko, O.K.; Prokhorov, A.P.; Smirnov, N.D.; Shtitel'man, O.B. (). Results from lidar probing of atmospheric ozone. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 255-257.

486. Kovalev, V.A.; Ignatenko, V.M.; Stepanenko, V.D.; Baldenkov, G.N. (). Processing of lidar signals when using non-horizontal probing of the atmosphere. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 61-63.

487. Kozintsev, V.I.; Kovalev, V.A.; Baldenkov, G.N.; Rybakov, Ye.Ye.; Dul'kin, V.M.; Koval'kova, Ye.E. (). Experimental results of comparing lidars and reference detectors. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 335-337.

488. Kozlov, V.S.; Fadeyev, V.Ya. (). Analytical approximation of the specific attenuation coefficient for a nonabsorbing aerosol and stability conditions. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 137-140.

489. Kozlov, V.S.; Pol'kin, V.V.; Pkhalagov, Yu.A.; Fadeyev, V.Ya. (). Effect of weather conditions on the microstructure of aerosols near the shore. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 141-144.

490. Krasnenko, N.P. (). Acoustic probing of the atmosphere: summary of developments. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 92-102.

491. Krekov, G.M.; Krekova, M.M. (). Polarization probing of multistaged cloud cover. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 163-166.

492. Krekova, M.M.; Penner, I.E.; Shamanayev, V.S. (). Probing an aqueous medium with an airborne lidar. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 222-224.

493. Kruchenitskiy, G.M.; Mal'kovskiy, A.P.; Marinushkin, V.N. (). Automatic turbulence indicator. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 251-253.

494. Kugeyko, M.M.; Antoshin, V.S.; Spiridovich, A.L. (). Some results of studying the optical characteristics of ocean aerosols. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 97-100.

495. Kugeyko, M.M.; Sergeyev, N.M. (). Effect of multiple scattering on the results of measuring optical characteristics by various lidar methods. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 175-178.

496. Kurganov, V.D.; Filippov, M.V. (MVTU). Generalized mathematical model of the passage of a light beam through a turbulent atmosphere. VINITI. Deposit, no. 2355-84, 16 Apr 1984, 13 p. (RZFZA, 84/7L909).

497. Kurilyak, R.N. (). Using a UPD-ES 9002 preprocessing device in automated experiments. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 294-296.

498. Kurilyak, R.N.; Shishlov, V.I. (). Automated monitoring and control in measurement systems. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 291-293.

499. Kushmatov, O.E.; Tikhonov, A.P.; Tyabotov, A.Ye.; Khvorost'yanov, V.I. (). Results of comparing lidar measurements with a mathematical model for the microstructure of fog. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 155-159.

500. Kutelev, A.F. (). Apparatus for laser and acoustic probing of the atmosphere. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 36-43.

501. Kuz'min, V.N.; Oshchepkov, S.L.; Prishivalko, A.P. (IFANB). Interpretation of the light scattering characteristics of aerosol media of anisotropic particles in terms of model systems of uniform spheres. IFAOA, no. 4, 1984, 280-286.

502. Lomadze, S.O.; Nesterova, T.N.; Smirnov, A.S. (IFA). System for automating experiments at the Institute of Atmospheric Physics of the USSR Academy of Sciences. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 341-344.

503. Lugin, E.V. (). Depolarization of a linearly polarized pulse in a resonantly absorbing nonlinear isotropic medium. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 341-344.

504. Makushkin, Yu.S.; Mitsel', A.A.; Ponomarev, Yu.N.; Firsov, K.M. (). Optical model of atmospheric absorption for narrow-band radiation with a wavelength of 10.6 um. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 334-337.

505. Makushkin, Yu.S.; Petrova, A.I.; Stroynova, V.N. (). Numerical analysis of the temperature dependence of the half-width of H2O spectral lines. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 367-370.

506. Marichev, V.N.; Kuzin, A.Ya.; Yel'nikov, A.V. (). Accuracy of determining nitrogen dioxide concentrations using differential lidar with a c-w radiation source. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 250-254.

507. Marichev, V.N.; Mot'kin, S.V.; Shelefontyuk, D.I. (). Instrumental processing of signals in a differential NO2 lidar. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 249-250.

508. Matviyenko, G.G.; Kolev, I.N.; Vorevodin, Yu.M.; Prvanov, O.P. (). Correlation lidar measurement of cloud velocity. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 3-6.

509. Megel', Yu.Ye.; Lagutin, M.F. (KhIRE). Laser probing of the atmosphere at the Molodezhnaya Antarctic Meteorological Center. IBULA, no. 104, 1983, 15-21.

510. Mikhalev, S.N.; Sergiyenko, V.I.; Smyshlyayev, V.K. (). Development of a laser rangefinder for determining the parameters of the earth's rotation. Problemy astrometrii. CVAstKon, 22nd, Moskva, 1-5 Jun 1981. GAISh. MGU. Moskva, 1984, 136-137.

511. Mizun, Yu.G. (). Physical principles of laser probing of the middle atmosphere. Polyarizovannaya ionosfera i ionosferno-magnitosfernoye vzaimodeystviye. Apatity, 1984, 67-88. (RZGFA, 84/7A74).

512. Molebnyy, V.V. (). Increasing the image contrast under conditions involving back-scattering noise. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 318-320.

513. Monastyrnyy, Ye.A.; Patrushev, G.Ya.; Petrov, A.I.; Pokasov, V.V. (). Method of determining the ambient degree of turbulence. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 26-28.

514. Moskalenko, N.I. (). Method for modeling the flux and spectral brightness of microwave radiation fields in absorbing and scattering atmospheres. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 317-319.

515. Naats, I.E. (). Theory on multifrequency probing of the atmosphere, using scattering effects and optical absorption. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 28-35.

516. Nadeyev, A.I.; Shelevoy, K.D. (). Evaluating the energy losses in a lidar with a built-in photon counting system. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 310-313.

517. Naku, I.M.; Chernobay, V.A. (). Quenching of an optical signal from a point source outside the atmosphere in the presence of large air masses. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 109-110.

518. Nefed'yeva, A.I. (). Current status of the problem of calculating refraction in observations. Problemy astrometrii. CVAstKon, 22nd, Moskva, 1-5 Jun 1981. GAISh. MGU. Moskva, 1984, 262-264.

519. Nemiro, A.A.; Gubanov, V.S. (). Scientific and technical revolution in astrometry. Problemy astrometrii. CVAstKon, 22nd, Moskva, 1-5 Jun 1981. GAISh. MGU. Moskva, 1984, 13-22.

520. Ol'khov, V.M. (IFA). Thermal self-action of light. IVYRA, no. 7, 1984, 943-944.

521. Orlov, V.M.; Ovcharenko, A.F.; Samokhvalov, I.V. (). Evaluating geometric factors in determining the probability characteristics of combining images. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 377-379.

522. Orlov, V.M.; Ovcharenko, A.F.; Samokhvalov, I.V. (). Selection characteristics for the optimum device for measuring the displacement in two-dimensional field components. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 48-50.

523. Orlov, V.M.; Ovcharenko, A.F.; Samokhvalov, I.V. (). Suboptimum device for measuring the shift in image fragments in a model of optical characteristic variation. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 377-379.

524. Podobed, V.V. (). One hundred and fifty years of Moscow astrometry. Problemy astrometrii. CVAstKon, 22nd, Moskva, 1-5 Jun 1981. GAISh. MGU. Moskva, 1984, 11-13.

525. Polkanov, Yu.A. (). Processing of measurement data by an asymptotic signal method. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 120-123.

526. Polkanov, Yu.A. (). Relating scattering signal inhomogeneities to the stability of atmospheric strata. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 117-119.

527. Poluyanov, A.L.; Popov, A.A. (). Some results of evaluating the refraction of an optical beam by a hexagonal crystal. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 229-232.

528. Ponomarev, Yu.N.; Solodov, A.M.; Tikhomirov, B.A. (). Measuring the shift in absorption line centers for H2O in the visible and near IR region due to air pressure. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 262-264.

529. Popov, A.A. (). Evaluating optical scattering characteristics: an algorithm for plotting the beam path in an arbitrarily convex polyhedron. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 225-228.

530. Popova, L.V.; Sutugin, A.G. (). Effect of a high-power radiation flux on ultradispersed particles. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 359-362.

531. Portasov, V.S. (). Feasibility of increasing the accuracy of measuring the energy of scattered laser radiation during lidar probing of stratospheric aerosols. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 135-136.

532. Poyata, A.F. (). New recurrence relations for the angular coefficients of the Mie solution. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 145-146.

533. Prokudina, T.M.; Kozintsev, V.I. (). Increasing the accuracy of an integrated laser atmospheric probing method. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 170-174.

534. Prokudina, T.M.; Kozintsev, V.I.; Gorodnichev, V.A. (). Accuracy of the differential absorption method in the IR spectral region. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 272-276.

535. Radyuk, I.M. (). Determining the parameters of cloud microstructures from the results of two-frequency laser probing. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 204-206.

536. Romanov, N.P.; Shuklin, V.S. (). Absorption spectrum of liquid water for wavelengths of 180-500 nm. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 215-217.

537. Romanov, N.P.; Shuklin, V.S. (). Determining the mass concentrations of luminescent aerosols. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 84-86.

538. Rykhlova, L.V. (). Sputniks and the study of the earth. Problemy astrometrii. CVAstKon, 22nd, Moskva, 1-5 Jun 1981. GAISh. MGU. Moskva, 1984, 78-87.

539. Sergiyenko, V.I. (). Calculation of refraction in astronomic observations. Problemy astrometrii. CVAstKon, 22nd, Moskva, 1-5 Jun 1981. GAISh. MGU. Moskva, 1984, 269-270.

540. Sergiyenko, V.I.; Yazev, A.I. (). Prospects for perfecting methods to determine the parameters of the earth's rotation. Problemy astrometrii. CVAstKon, 22nd, Moskva, 1-5 Jun 1981. GAISh. MGU. Moskva, 1984, 132-134.

541. Sergiyenko, V.I.; Yazev, A.I.; Radchuk, A.G. (). Automatic complex for determining the parameters of the earth's rotation. Problemy astrometrii. CVAstKon, 22nd, Moskva, 1-5 Jun 1981. GAISh. MGU. Moskva, 1984, 135-136.

542. Serzhantov, V.G.; Sivolobov, V.V.; Surkin, R.I. (). Feasibility of probing F-11 and F-12 freon using a Raman lidar. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 350-351.

543. Shelevoy, K.D. (). Differential pulse discriminator-counter. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 304-305.

544. Shelevoy, K.D. (). Economical photon counter. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 299-300.

545. Shelevoy, K.D. (). Recording system combined with a computer. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 301-303.

546. Solov'yev, A.A.; Kopytin, Yu.D.; Balandin, S.F. (). Emission of e-m waves from a flaring plasma. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 363-364.

547. Soshnikov, V.N. (). Threshold characteristics of laser breakdown in opaque aerosol particles in air. VINITI. Deposit, no. 2801-84, 29 Apr 1984, 13 p. (RZFZA, 84/7L1217).

548. Tikhomirov, A.A. (). Comparative analysis of methods for compressing the dynamic range of lidar signals. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 283-286.

549. Tikhomirov, A.A. (). Dynamic signal-to-noise ratio for a regulated lidar signal. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 287-290.

550. Vagin, N.I.; Veretennikov, V.V. (). Determining the spectrum of drop sizes from the fluctuation of light intensity during multiple scattering. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 241-244.

551. Veretennikov, V.V.; Panchenko, M.V. (). Algorithm for interpreting lidar data using a single parameter model. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 233-236.

552. Veretennikov, V.V.; Panchenko, M.V. (). Using a single parameter model in smoke detection problems. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 237-240.

553. Villeval'de, Yu.V.; Lamden, K.S.; Smirnov, A.V. (). Results of measuring the spectral transparency of the atmosphere under ocean conditions. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 111-113.

554. Volgin, V.M.; Smirnov, A.V. (). Effect of the solar aureole on measuring the spectral transparency of the atmosphere above the ocean. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 124-126.

555. Vorevodin, Yu.M.; Len'kov, S.I.; Matviyenko, G.G.; Popov, L.N. (). Remote probing of the motion of optical inhomogeneities in the atmosphere, using passive methods. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 7-10.

556. Vostretsov, N.A.; Zhukov, A.F.; Kabanov, M.V.; Tsvyk, R.Sh. (IOA). Spectra of intensity fluctuations for laser beams in atmospheric precipitation. IFAOA, no. 7, 1984, 581-588.

557. Voytsekhovskaya, O.K.; Makushkin, Yu.S.; Sulakshina, O.N.; Cherepanov, V.N. (). Method for evaluating spectral line parameters of nitrogen-containing compounds (NO, NO2, HNO3). CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 345-346.

558. Voytsekhovskaya, O.K.; Yedgina, L.D. (). Analysis of the reduction in concentrations of gas mixture components in the solution of an inverse problem by computer. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 265-268.

559. Yachmenev, V.A. (). Corrections to the Mie approximation for the intensity of a scattering field. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 131-134.

560. Yachmenev, V.A. (). Optical scattering from spheroidal particles with small eccentricities. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 127-130.

561. Yefremov, N.P.; Lagutin, M.F.; Mel'nikov, V.Ye. (). Threshold parameters of resonant lidar illuminators. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 332-334.

562. Yerofeyev, A.L.; Ivonin, A.V.; S"yedin, V.Ya. (). Formation and measurement of Fourier speckle in probing problems. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 51-53.

563. Zemlyanov, A.A.; Pal'yanov, P.A. (). Operation of a photomultiplier during reception of weak pulsed signals. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 256-260.

564. Zemlyanov, A.A.; Sinev, S.N. (). Threshold intensity levels for a probing beam in a refraction channel. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 309-312.

565. Zemlyanskiy, V.M. (). Spatial characteristics of the structure of a Doppler lidar signal with a small angle between probing beams. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 63-66.

566. Zemlyanskiy, V.M.; Divnich, N.P. (). Study on the effect of aerosol dimensions on a laser velocimeter signal. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 59-62.

567. Zhukov, A.F.; Lukin, I.P.; Mironov, V.L.; Tsvyk, R.Sh. (). Amplitude measurement of the ambient degree of turbulence. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 29-32.

568. Zhuravlev, V.I.; Stuchebrov, G.A.; Shinkevich, S.L. (). Analog-digital converter for recording lidar signals. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 297-299.

569. Zhuravleva, V.A. (). Determining the water content of cirrus clouds by simultaneous lidar and IR radiometry measurements. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 167-169.

570. Zotov, O.V.; Makarov, V.S.; Moskalenko, N.I. (). Results of experimental studies of high-resolution IR absorption spectra for isotopically varying carbon dioxide gas and water vapor . CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 347-349.

571. Zuyev, V.Ye.; Ippolitov, I.I.; Marichev, V.N. (). Feasibility of studying the middle atmosphere using high-altitude lidar. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 245-249.

572. Zuyev, V.Ye.; Kavkyanov, S.I.; Krekov, G.M. (). Statistical theory on laser probing of an atmospheric aerosol. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 16-27.

573. Zuyev, V.Ye.; Makushkin, Yu.S.; Mitsel', A.A.; Nesmelova, L.I.; Rodimova, O.V.; Rudenko, V.P.; Tvorogov, S.D.; Firsov, K.M.; Yakovlev, N.Ye. (). Dialog system for evaluating the characteristics of molecular absorption. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 298-299.

574. Zuyev, V.Ye.; Muravskiy, V.P.; S"yedin, V.Ya.; Shamanayeva, L.G. (). Experimental study on the mechanism of sound generation during remote laser atmospheric breakdown. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 119-123.

575. Zuyev, V.Ye.; Zhil'tsov, V.I.; Koznitsev, V.I.; Krekov, G.M.; Kutelev, A.F.; Nikiforov, V.G.; Samokhvalov, I.V. (). Lidar for remote determination of atmospheric parameters. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 3-15.

3. Propagation in Liquids

576. Al'tshuler, G.B.; Belashenkov, N.R.; Karasev, V.B.; Kozlov, S.A.; Krylov, K.I.; Okishev, A.V. (LITMO). Self-diffraction of a train of ultrashort optical pulses in a dye solution. PZTFD, no. 13, 1984, 816-820.

577. Denisov, L.K.; Ikhenov, D.A.; Sivovolov, V.A. (). Laser fluorimeter for monitoring organic impurities in water. CRNTShSL. Materialy. Minsk, 1983, 165-167. (RZRAB, 84/7Ye392).

578. Kur'yanov, B.F.; Klyachin, B.I. (). Application of the theory of radiation transfer to problems on the propagation of noise in the ocean. Problemy akustiki okeana. Moskva, Nauka, 1984, 16-30.

579. Levchenko, S.A.; Rudin, G.I.; Stolovich, N.N.; Shabunya, S.I. (). Nonresonant absorption of nanosecond ruby laser radiation in water. Teplo- i massoperenos eksperimental'noy i teoreticheskoy issledovaniy. Minsk, 1983, 73-75. (RZFZA, 84/7L1237).

580. Prishivalko, A.P. (). Laser heating of large water drops with surface films. ZPSBA, vol. 41, no. 1, 1984, 33-39.

4. Adaptive Optics

581. Afanas'yev, A.A.; Urbanovich, A.I. (). Wavefront reversal in a resonant fourwave interaction in a field spaced by the times of reference pulses. ZPSBA, v. 40, no. 3, 1984, 459-464. (RZFZA, 84/7L1173).

582. Andreyev, N.F.; Bespalov, V.I.; Betin, A.A.; Dvoretskiy, M.A.; Zhukov, Ye.A.; Kiselev, A.M.; Makarov, A.I.; Mitropol'skiy, O.V.; Pasmanik, G.A.; Potemkin, A.K.; Razenshteyn, P.S.; Shilov, A.A. (IPF). Hypersonic wavefront reversing mirror and prospects for its use in adaptive laser systems. IANFA, no. 8, 1984, 1619-1615.

583. Andreyev, N.F.; Bespalov, V.I.; Dvopretskiy, M.A.; Pasmanik, G.A. (IPF). Four-wave hypersonic reversing mirrors in a saturation regime. KVEKA, no. 7, 1984, 1476-1479.

584. Apollonov, V.V.; Borodin, [illegible]; Kharcharenko, I.V.; Ostanin, V.V.; Prokhorov, A.M.; Khomich, V.Yu.; Khristyan, Ye.B.; Chetkin, S.A. (IOF). Fixed and adaptive power optics. IANFA, no. 8, 1984, 1639-1643.

585. Artamonov, N.N.; Kiselev, G.L.; Kozlov, S.N.; Pechenov, A.S. (). Experimental study on phase conjugation adaptive systems with controlled composite mirrors. IANFA, no. 7, 1984, 1415-1418.

586. Bakut, P.A.; Matveyev, I.N.; Sviridov, K.N.; Ustinov, N.D.; Khomich, N.Yu. (). Possibility of reconstructing an image of an object undistorted by the atmosphere from its speckle interferogram. OPSPA, v. 57, no. 1, 1984, 135-138.

587. Balakhovskaya, T.I.; Borisenko, V.I.; Vitrichenko, E.A.; Maslennikov, K.L.; Prokhorov, A.M.; Sagdeyev, R.Z.; Trushin, Ye.V.; Chesalin, L.S. (IKI). High-speed Hartman method for problems in astronomic adaptive optics. DANKA, v. 274, no. 5, 1984, 1057-1060. (RZASA, 84/7.51.831).

588. Basov, N.G.; Kovalev, V.I.; Fayzullov, F.S. (FIAN). Wavefront reversal of medium IR laser radiation. IANFA, no. 7, 1984, 1407-1414.

589. Bunkin, F.V.; Brysev, A.P.; Vlasov, D.V.; Kravtsov, Yu.A. (). Nonlinear mechanisms of wavefront reversal in acoustics. Problemy akustiki okeana. Moskva, Nauka, 1984, 102-108.

590. Kandidov, V.P.; Shmeleva, G.L. (MGU). Adaptive focusing of a light beam during wind refraction. KVEKA, no. 8, 1984, 1653-1655.

591. Karamzin, Yu.N.; Sukhorukov, A.P.; Trofimov, V.A. (MGU). Adaptive systems for self-focusing of optical radiation in nonlinear media. IANFA, no. 7, 1984, 1424-1429.

592. Kazaryan, R.A.; Rylov, G.Ye. (IFI). Optical mixing during wavefront reversal. IAAFA, no. 4, 1984, 229-231.

593. Kulybin, V.M.; Pushkarev, V.B.; Khlynina, Ye.G. (MEI). Study on the efficiency of an adaptive laser Doppler anemometer. MEI. Trudy, no. 602, 1983, 49-55. (RZRAB, 84/7Ye433).

594. Lavrovskiy, L.A.; Levashkevich, L.V.; Morgun, Yu.F. (). Periodic pulsed ruby laser with wavefront reversal by stimulated Brillouin scattering. CRNTShSL. Materialy. Minsk, 1983, 92. (RZRAB, 84/7Ye82).

595. Modal compensation of turbulent atmospheric distortions and isoplanetisms. IKI. Preprint, no. 881, 1984, 22 p. (RZASA, 84/8.51.654).

596. Muradyan, A.Zh. (). Bistability during nondegenerate wavefront reversal by a Fabry-Perot etalon filled with a resonant gas. OPSPA, v. 56, no. 3, 1984, 518-522. (RZFZA, 84/7L984).

597. Orbachevskiy, L.S.; Rozhdestvin, V.N.; Cherkasov, A.S. (). Quality of compensation of inhomogeneities in systems with a wavefront-reversing mirror. CRNTShSL. Materialy. Minsk, 1983, 93-95. (RZRAB, 84/7Ye466).

598. Sukhorukov, A.P.; Timofeyev, V.V.; Trofimov, V.A. (MGU). Adaptive focusing of optical beams by flexible mirrors in nonlinear media. IANFA, no. 7, 1984, 1400-1406.

599. Taranenko, V.G. (). Theoretical and experimental studies on an adaptive mirror with random phase distortions. IANFA, no. 7, 1984, 1419-1423.

600. Vasin, A.G.; Golub, M.A.; Danilov, V.A.; Kazanskiy, N.L.; Karpeyev, S.V.; Sisakyan, I.N.; Soyfer, V.A.; Uvarov, G.V. (FIAN). Calculation and study on a coherent wave field in the focal region of radially symmetric optical elements. FIAN. Preprint, no. 304, 1983, 38 p. (RZFZA, 84/8L490).

601. Vitrichenko, E.A. (). Current status and prospects for improving the optics of large telescopes. Vsesoyuznaya konferentsiya Rabochoy gruppy Astroklimat astrosoveta AN SSSR, Abastumani, 23-26 Nov 1981. Trudy. Leningrad, 1984, 10-19. (RZASA, 84/7.51.863).

602. Vorontsov, M.A.; Sivokon', V.P.; Chesnokov, S.S. (MGU). Analysis of an adaptive optical system using numerical experimental methods. IANFA, no. 7, 1984, 1394-1399.

603. Voytsekhovich, V.V. (IKI). Time characteristics of adaptive astronomic systems. IKI. Preprint, no. 873, 1984, 24 p. (RZASA, 84/8.51.653).

D. COMPUTER TECHNOLOGY

604. Kochetkov, M.N.; Katsitadze, T.A.; Menagareshvili, G.N.; Sysoyev, S.G. (IKGr). Optical correlator. OTIZD, no. 26, 1984, 1103261.

605. Komarov, V.A.; Zaychenko, O.V.; Malikov, V.T.; Stavrakov, G.N.; Mankevich, S.K. (). Automation of the process for input and recording of information in coherent information processing systems. CRNTShSL. Materialy. Minsk, 1983, 206-208. (RZFZA, 84/7L738).

606. Mayyer, A.A. (IOF). Self-switching of light in integrated optics. IANFA, no. 7, 1984, 1441-1446.

607. Mityakov, V.G.; Fedorov, V.B. (). Comparison of methods for phase masking in holographic recording of binary code transparencies. OPSPA, v. 57, no. 2, 1984, 306-312.

608. Pikkel', E.V.; Pleshanov, Yu.V.; Samoylov, V.D. (). Comparison of algorithms for separating information on the angle of a radiation source in E-O devices. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 239-242.

609. Rumyantsev, K.Ye. (). Energy parameters for optical spatial search systems. IVUZB, no. 3, 1984, 9-12. (RZRAB, 84/8Ye366).

610. Sedukhin, A.G. (GOI). Using a scanning method of recording to form code masks for photoelectric angular displacement converters. OPMPA, no. 8, 1984, 39-42.

611. Umnov, V.P.; Sorokin, S.L. (). Functional correction of microelectronic digital-analog converter characteristics on a laser device. PRSUB, no. 7, 1984, 34.

612. Vsevolodov, N.N.; Dyukova, T.V.; Korchemskaya, Ye.Ya.; Soskin, M.S.; Taranenko, V.B. (IFANUk; IBFiz). Nonlinear Weigert effect in bacteriorodopsin biochrome films. UFZHA, no. 7, 1984, 1107-1109.

613. Zubov, V.A.; Krayskiy, A.V.; Sultanov, T.T. (FIAN). Interference correlator with a modified twin-wave interferometer scheme. FIAN. Preprint, no. 62 [in English], 1983, 30 p. (RZFZA, 84/7L747).

E. HOLOGRAPHY

614. Afyan, V.V.; Vartanyan, A.V.; Martirosyan, R.G.; Ryabikov, S.V.; Strebkov, D.S. (VNIITArm). Holographic method for producing an optical concentrator. OTIZD, no. 26, 1984, 1103049.

615. Afyan, V.V.; Vartanyan, A.V.; Martirosyan, R.G.; Strebkov, D.S. (). Holographic method for producing an optical device. OTIZD, no. 26, 1984, 1103048.

616. Agashkov, A.V.; Morgun, Yu.F. (). Lasers with positive electroptic feedback for holography and holographic interferometry. CRNTShSL. Materialy. Minsk, 1983, 108-109. (RZRAB, 84/7Ye524).

617. Angel'skiy, O.V.; Polyanskiy, V.K. (ChGU). Study on the efficiency of holographic methods for studying transient scattering objects and media. FOOSD, no. 15, 1984, 116-122.

618. Auslender, A.L.; Sobolev, G.A.; Tsvetov, Ye.R.; Chernykh, D.F. (). Device for measuring the holographic characteristics of photographic recording media. OTIZD, no. 25, 1984, 1101781.

619. Barabash, Yu.M.; Borodkina, M.S.; Malakhova, I.A.; Marshak, N.A. (KGU, VGNIPIKFP). Rheologic properties of thin films of thermoplastic media in the temperature range for displaying a latent image. FOOSD, no. 15, 1984, 9-14.

620. Bazhenov, M.Yu. (KGU). Measuring the charge-discharge characteristics of high-ohm photosemiconductor films in real time. FOOSD, no. 15, 1984, 5-9.

621. Borshch, A.A.; Kukhtarev, N.V.; Semioshko, V.N. (IFANUk). The vector self-diffraction of light waves in cadmium sulfide crystals. KVEKA, no. 7, 1984, 1368-1372.

622. Daskalov, O.D.; Tsurnorechki, O.S. (). Scanning device for determining the noise characteristics of holographic recording media. Author's certificate Bulgaria, no. 31335, 25 Dec 1981. (RZRAB, 84/7Ye513).

623. Dubyanskiy, V.I.; Potapov, O.A.; Maksimyak, N.V. (VGU; NPONeftegeofizika; Mingeo). Principles of rapid processing and visualization of seismic information today and in the future. Razvedochnaya geofizika [Ekspress-informatsiya], no. 8, 1984, 13-20.

624. Grinev, A.Yu.; Yaroslavskiy, L.P.; Merzlyakov, N.S.; Temchenko, V.S.; Voronin, Ye.N. (). Synthesis of characteristic-shaped transparencies for ringed antenna arrays, using digital holography methods. RAELA, no. 7, 1984, 1266-1273.

625. Gurov, G.A.; Chernyak, O.V.; Potapov, O.A.; Kondyurin, V.A.; Kunin, V.A.; Khlynov, Ye.A.; Chuchumashev, V.S (NPONeftegeofizika). Using the principles and properties of holography to process geological and geophysical information. Razvedochnaya geofizika [Ekspress-informatsiya], no. 8, 1984, 21-25.

626. Gusev, V.G.; Sokolov, V.V. (). Double-exposure hologram of a displaced plane scattering surface illuminated by a spherical wave. VINITI. Deposit, no. 2168-84, 10 Apr 1984, 19 p. (RZFZA, 84/7L841).

627. Hamed, A.M. (). Recognition of colored objects by thick holographic multiplexed filters. OPAPB, no. 3, 1983, 205-213. (RZFZA, 84/8L670).

628. Isbasescu, M.; Dabu, R.V.A. (). Laser for high-speed holography. Patent Romania, no. 80901, 28 Feb 1983. (RZRAB, 84/7Ye511).

629. Janikijevik, Lj. (). Analysis of the process of reconstruction of a linear hologram by a spherical Gaussian wave. Bil. Sojuz. drush. fiz. SRM [in Macedonian], v. 32-33, 1982-1983, 15-25. (RZFZA, 84/7L845).

630. Kasprzak, H. (). Numerical reconstruction properties of Fourier type synthetic amplitude holograms. OPAPB, no. 2, 1983, 187-190. (RZFZA, 84/8L664).

631. Knyaz'kov, A.V.; Kozhevnikov, N.M.; Kuz'minov, Yu.S.; Kulikov, V.V.; Polozkov, N.M.; Sergushchenko, S.A. (LPI). Effect of an electric field on the diffraction efficiency of holograms in cerium-doped barium-strontium niobate crystals. ZTEFA, no. 7, 1984, 1379-1381.

632. Komar, V.G.; Zhukov, V.A.; Serov, O.B. (NIKFI). Method for reconstructing holographic images. OTIZD, no. 28, 1984, 1105857.

633. Korolev, A.Ye.; Stasel'ko, D.I. (). Phase amplitude recording of dynamic holograms and limit sensitivity of resonant atomic media. OPSPA, v. 57, no. 2, 1984, 299-305.

634. Kovac, J. (). Holography: example of an integrated approach to the presentation of wave phenomena. Matematika a fyzika ve skole [in Slovakian], no. 3, 1983, 183-190. (RZFZA, 84/7A50).

635. Lavrovskiy, L.A.; Morgun, Yu.F.; Muravitskiy, M.A. (). Single-frequency pulsed ruby laser for copying holograms and testing photomaterials. CRNTShSL. Materialy. Minsk, 1983, 111-112. (RZRAB, 84/7Ye83).

636. Mamayev, A.V.; Pilipetskiy, N.F.; Shkunov, V.V. (). Experimental study on the diffraction efficiency of amplitude-phase stimulated Brillouin scattering holograms. Elementarnyye protsessy v khimicheskikh reagiruyushchikh sredakh. Moskva, 1983, 87-92. (RZFZA, 84/7L835).

637. Mazurenko, Yu.T. (). Pulsed Fourier optics. OPSPA, v. 57, no. 1, 1984, 8-11.

638. Mildner, J. (). Thermoplastic recording media for holography. FMC-Ser. Inst. Mech. Akad. Wiss. DDR, no. 3, 1982, 31-35. (RZFZA, 84/8L665).

639. Podbielska, H. (). Possible application of one-step pseudoscopic rainbow holography to interferometric examination of phase objects. OPAPB, no. 2, 1983, 177-180. (RZFZA, 84/8L662).

640. Podbielska, H.; Kasprzak, H. (). Recording of the pseudo- and orthoscopic images of the same resolution in one hologram by rainbow holography. OPAPB, no. 3, 1983, 307-311. (RZFZA, 84/8L661).

641. Sukhanov, V.I.; Ashcheulov, Yu.V.; Petnikov, A.Ye.; Lashkov, G.I. (). 3D hologram on reoxane as a narrow band spectral selector. PZTFD, no. 15, 1984, 925-928.

642. Szyjer, M.; Sochacka, M. (). Holography with evanescent reference waves. OPAPB, no. 3, 1983, 247-255. (RZFZA, 84/8L668).

643. Tataurov, S.P. (). Method for producing a holographic element. OTIZD, no. 32, 1984, 1111129.

644. Uzhov, N.V.; Fedoseyev, V.B.; Kuznetsov, A.A.; Denisov, A.Yu. (MVTU). Device for determining the resolution of holographic recording media. OTIZD, no. 25, 1984, 1101780.

645. Vlasov, N.G.; Savilova, Yu.I. (). Method for recording rainbow holograms. OTIZD, no. 26, 1984, 1103194.

646. Yarmosh, N.A.; Kulik, V.Ya.; Yerokhovets, V.K. (ITK). Selective properties of volumetrically oriented holograms. FOOSD, no. 15, 1984, 123-127.

F. LASER-INDUCED CHEMICAL REACTIONS

647. Akilov, R.; Bekov, G.I.; Pendyur, S.A.; Talenskiy, O.N. (FIAN). Layering of lamellar cadmium sulfide crystals. KRISA, no. 4, 1984, 810-811.

648. Akulin, V.M. (FIAN). Study on the excitation dynamics of vibrational levels of polyatomic molecules in a strong IR laser field. Mnogofotonnyye protsessy v molekulakh. FIAN. Trudy, no. 146, 1984, 122-185.

649. Akulin, V.M.; Vurdov, V.D.; Yesadze, G.G.; Karlov, N.V.; Prokhorov, A.M.; Susanin, A.A.; Khokhlov, E.M. (IOF). Controlling the fragmentation process of molecules under the action of electron impact by IR laser excitation of vibrational modes. ZFPRA, v. 40, no. 2, 1984, 53-55.

650. Alimov, D.T.; Yedvabnyy, I.V.; Luk'yanchuk, B.S.; Khabibullayev, P.K. (IYaFANUz). Absorption wave from laser heating of a chemically active medium. ZTEFA, no. 7, 1984, 1302-1309.

651. Alkhazov, G.D.; Barzakh, A.Ye.; Berlovich, E.Ye.; Denisov, V.P.; Dernyatin, A.G.; Ivanov, V.S.; Letokhov, V.S.; Mishin, V.I.; Fedoseyev, V.N. (LIYaF, ISAN). Shell effect in the isotopic dependence of mean square-law charged radii of short-lived europium nuclei, measured by laser photoionization detection "in line" with an accelerator. ZFPRA, v. 40, no. 2, 1984, 95-98.

652. Aslanidi, Ye.B.; Zarubin, V.T.; Turishchev, Yu.S. (NIISI). Dissociation of difluoromethylene-bis-hypofluorite in a CO2 laser radiation field. SAKNA, vol. 116, no. 2, 1984, 301-304.

653. Baklanov, A.V.; Petrov, A.K. (). IR multiphoton dissociation of 1,2-C(sub2)H(sub4)ClF, 1,3-C(sub3)H(sub6)ClF and 1,4-C(sub4)H(sub8)ClF molecules in the gas phase. Khimicheskaya fizika, no. 4, 1984, 546-553. (RZFZA, 84/7L1245).

654. Baranov, V.Yu.; Kazakov, S.A.; Kuz'menko, V.A.; Pigul'skiy, S.V. (). The isotopically selective dissociation of Freon-12 molecules in a single-frequency field of a pulsed CO2 laser. KVEKA, no. 7, 1984, 1495-1497.

655. Borisov, S.K.; Kotochigova, S.A.; Krynetskiy, B.B.; Mishin, V.A.; Stel'makh, O.M. (IOF). Study on a four-step laser isotope separation scheme for ytterbium. ZTEFA, no. 7, 1984, 1375-1379.

656. Bunkin, F.V.; Kirichenko, N.A.; Luk'yanchuk, B.S. (IOF). Nonlinear processes during laser heating of chemically active media. IANFA, no. 8, 1984, 1485-1503.

657. Bunkin, F.V.; Tugov, I.I. (FIAN). Multiphoton excitation, dissociation and ionization of molecules. Mnogofotonnyye protsessy v molekulakh. FIAN. Trudy, no. 146, 1984, 3-16.

658. Burenko, S.F.; Danilov, I.L.; Karavayev, V.A. (). Multiphoton dissociation and laser chemical reactions of CCl(sub3)F, CCl(sub2)F(sub2) and CF(sub3)I. Molekulyarnaya spektroskopiya, no. 6, Leningrad, 1983, 90-111. (RZFZA, 84/7L1254).

659. Datskevich, N.P.; Karlov, N.V.; Kononov, N.N.; Kuz'min, G.P.; Nesterenko, A.A.; Rukhadze, A.A.; Prokhorov, A.M.; Toker, G.R. (IOF). Study of breakdown in low-pressure argon and helium, using CO2 laser radiation. FIPLD, no. 4, 1984, 762-768.

660. Delone, N.B.; Manakov, N.L.; Faynshteyn, A.G. (IOF, VGU). Ionization of atoms by low-frequency and optical-frequency fields. ZETFA, v. 86, no. 3, 1984, 906-914.

661. Dubrovskiy, V.A.; Gusev, V.V. (). Controlling the rate of a photocatalytic reaction by resonant action of laser radiation on the catalyst. Issledovaniya po nelineynoy optike i spektroskopii: spektroskopiya molekul, primesnykh tsentrov i lazernykh sred. SGU. Saratov, 1983, 83-90. (RZFZA, 84/8L1031).

662. Gol'tsov, A.V.; Tugov, I.I. (FIAN). Angular dependence of cross-sections of two-photon and multiphoton transitions in molecules. Mnogofotonnyye protsessy v molekulakh. FIAN. Trudy, no. 146, 1984, 66-75.

663. Gol'tsov, A.V.; Tugov, I.I. (FIAN). Light scattering at resonances in dissociating states of diatomic molecules. Mnogofotonnyye protsessy v molekulakh. FIAN. Trudy, no. 146, 1984, 76-91.

664. Kirillin, A.V.; Kovalenko, M.D.; Sheyndlin, M.A. (IVTAN). Heating of liquid carbon up to 7000 K by c-w laser radiation. ZFPRA, v. 40, no. 2, 1984, 51-52.

665. Sazonov, V.N.; Stuchebrukhov, A.A. (FIAN). Statistics of an ensemble of oscillators under excitation. Part 5. Analysis of experiments on the absorption of CO2 laser radiation by SF6 based on a triply degenerate oscillator model. FIAN. Preprint, no. 71 [in English], 1983, 30 p. (RZFZA, 84/7L963)

666. Semchishen, V.A. (). Photochemical reactions in a solution of protoporphyrine-IX in chloroform under the action of laser radiation. Khimicheskaya fizika, no. 4, 1984, 554-559. (RZFZA, 84/7L1256).

667. Tugov, I.I. (FIAN). Perturbation theory for multiphoton transitions in diatomic molecules. Mnogofotonnyye protsessy v molekulakh. FIAN. Trudy, no. 146, 1984, 17-65.

668. Tugov, I.I.; Chernyavskiy, V.P. (FIAN). Matrix elements of vibrational-rotational transitions of diatomic molecules and their isotopic variations. Mnogofotonnyye protsessy v molekulakh. FIAN. Trudy, no. 146, 1984, 92-108.

669. Tugov, I.I.; Chernyavskiy, V.P. (FIAN). Multiphoton vibrational-rotational transitions of diatomic molecules and the Stark effect. Mnogofotonnyye protsessy v molekulakh. FIAN. Trudy, no. 146, 1984, 109-121.

670. Zikrin, B.O. (IOF). Laser excitation of high vibrational states of sulfur hexafluoride molecules. IOF. Dissertation, 1984, 18 p.

G. MEASUREMENT OF LASER PARAMETERS

671. Aleksandrov, Yu.V.; Bliznyuk, V.V.; Sharikhin, V.F. (MEI). Feed-through semiconductor instrument for measuring optical radiation power. MEI. Trudy, no. 597, 1983, 12-17. (RZFZA, 84/7L676).

672. Andriyakhin, V.M.; Akhapkin, G.I.; Zhukov, I.V.; Kozar', A.V.; Legotin, S.D.; Pirogov, Yu.A. (). Infrared radiometer for controlling laser action on a surface. Poverkhnost'. Fizika, khimiya, mekhanika, no. 10, 1983, 144-147. (TVKED, 34/84, 157).

673. Andriyakhin, V.M.; Kondrat'yev, Ye.L.; Seleznev, B.V. (). Instrument for measuring the parameters of laser radiation. IZTEA, no. 2, 1984, 29-30. (RZFZA, 84/8L901).

674. Antipenko, B.M. (). Spectroscopic method of pumping laser transitions with a high pump band quantum efficiency. IANFA, no. 7, 1984, 1373-1378.

675. Bessmertnyy, V.N.; Il'in, V.P.; Mal'tsev, V.S.; Chinarev, V.K. (). Device for stabilizing the radiation power of gas He-Ne lasers. Reaktornoye ispytaniye materialov. Moskva, 1983, 68-70. (RZFZA, 84/8L929).

676. Burnashev, M.N.; Krylov, P.S.; Mironov, A.V.; Tkachenko, L.P. (). Device for precision measurement of wavelengths. CVKOLaze, 4th, Leningrad, 13-18 Jan 1984. Tezisy dokladov. GOI. Leningrad, 1983, 335. (TVKED, 34/84, 1071).

677. Demchuk, M.I.; Dmitriyev, S.M.; Mikhaylov, V.P.; Prokoshin, P.V. (NIIPFP). Synchronization scheme for the Agat electrooptic camera when recording ultrashort laser pulses. PRTEA, no. 2, 1984, 227-228.

678. Elias, J. (). Measuring the radius of a laser beam. JMKOA, no. 3, 1984, 65-66. (RZFZA, 84/8L895).

679. Govor, I.N.; Kubarev, A.V.; Ozolin, V.V. (). Standard of comparison for a unit of laser radiation power. IZTEA, no. 7, 1984, 34-35.

680. Ioffe, L.A.; Podal'chuk, N.D. (). Elimination of cross-talk in multielement radiation measuring converters. Teplovyye priyemniki izlucheniya. CVSTPIzl, 4th, Moskva, Feb 1984. Tezisy dokladov. GOI. Leningrad, 1983, 53-54. (RZRAB, 84/8Ye353).

681. Ioffe, L.A.; Podal'chuk, N.D. (). Primary measuring converter for laser engineering. Teplovyye priyemniki izlucheniya. CVSTPIzl, 4th, Moskva, Feb 1984. Tezisy dokladov. GOI. Leningrad, 1983, 52. (RZRAB, 84/8Ye354).

682. Kazak, N.S.; Lugina, A.S.; Miklavskaya, Ye.M.; Nadenenko, A.V.; Pavlenko, V.K.; Sannikov, Yu.A. (). Laser radiation divergence meter based on the interference of polarized waves in birefringent crystals. CRNTShSL. Materialy. Minsk, 1983, 179-181. (RZFZA, 84/8L894).

683. Kuehmstedt, R.; Triebel, W. (). Device for time delay regulation and spacing of lightbeams. Patent GDR, no. 203649, 26 Oct 1983. (RZRAB, 84/8Ye332).

684. Tyushkevich, F.N.; Dashkevich, V.I. (). Radiation dynamics of a laser with stepped Q-switching. CRNTShSL. Materialy. Minsk, 1983, 87-89. (RZFZA, 84/8L934).

685. Vakulenko, A.M.; Vasil'yev, N.A.; Yegorov, V.S.; Kal'chenko, Yu.N.; Lezhnev, A.V.; Matsveyko, A.A.; Chuvilin, A.N. (FIAN). Television analyzer of laser radiation. FIAN. Preprint, no. 180, 1984, 23 p.

686. Vasin, B.I.; Shishkina, I.I.; May, R.G. (FIAN). Multielement calorimetric instrument for measuring radiation energy distribution over the cross-section of a beam. PRTEA, no. 2, 1984, 246.

687. Vojtek, P.; Senderakova, D.; Strba, A. (). Forming of laser beams for investigation of nonlinear optical phenomena [in English]. Acta physica Universitatis comenianae. Bratislava, v. 23, 1983, 69-75. (RZFZA, 84/8L932).

688. Zagorskiy, Ya.T.; Karabak, Yu.V.; Kuznetsov, A.A. (). Measuring and recording of the directional pattern of light-emitting devices. Poluprovodnikovaya elektronika v tekhnike svyazi, no. 24, Moskva, Radio i svyaz', 1984, 96-102.

H. LASER MEASUREMENT APPLICATIONS

1. Direct Measurement by Laser

689. Adamyan, Z.N.; Azaryan, M.G.; Arutyunyan, V.M.; Saydashev, I.I.; Shmartsev, Yu.V. (FTI). Noise in symmetrical planar zinc-compensated silicon structures. FTPPA, no. 7, 1984, 1173-1177.

690. Alekseyev, E.I.; Bazarov, Ye.N.; Izrayelyan, V.G.; Kukhta, A.V. (IRE). Increasing the stability of a signal of a multimode fiber ring interferometer by means of a spatially incoherent radiation source. PZTFD, no. 7, 1984, 443-446. (RZRAB, 84/Ye261).

691. Andronova, I.A.; Kuvatova, Ye.A.; Mamayev, Yu.A.; Novikov, M.A. (). Nonmutual properties of the equatorial Kerr effect in thin magnetic films. Magnetic films without absorption. OPSPA, v. 57, no. 2, 1984, 292-298.

692. Andrusenko, A.M.; Kupko, V.S.; Pushkarev, G.P. (). Current status and prospects for the development of the metrological factors for laser rangefinding. CVNTKMOI, Khar'kov, 23-25 Nov 1983. Tezisy dokladov. Khar'kov, 1983, pp not given. (TVKED, 34/84, 271).

693. Azovtsev, V.P.; Zemskov, K.I.; Kazaryan, M.A.; Petrash, G.G.; Dudravskiy, D.D.; Shvernik, L.N. (). Light valve projection device for displaying information. OTIZD, no. 19, 1983, 1019669. (RZRAB, 84/7Ye317).

694. Belov, M.L.; Orlov, V.M. (). Remote probing of natural formations. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 80-83.

695. Belyayev, V.K.; Dashevskiy, P.Ye.; Polukhin, V.N.; Prokhorov, A.M.; Chevokin, V.K.; Chernitskiy, B.M. (FIAN). The Sapfir electrooptic camera for recording fast-flow processes in the UV. FIAN. Preprint, no. 16, 1984, 12 p. (RZFZA, 84/8L578).

696. Berezhnyy, V.L.; Yepishin, V.A.; Kononenko, V.I.; et al. (FTIANUk). Submillimeter heterodyne laser interferometer. FTIANUk. Preprint, no. 82-48, 1982, 57 p. (KNLTA, 32/84, 27195).

697. Biryulin, V.P.; Mostovoy, I.Ya.; Utekhin, A.Ye. (). Logarithmic converter using digital integrators for laser gas analyzers under field conditions. Elementy i ustroystva elektronnoy izmeritel'noy tekhniki. Moskva, 1983(1984), 82-89. (RZRAB, 84/8Ye398).

698. Blanter, B.E.; Krivtsov, Ye.P.; Luk'yanov, D.P.; Sinel'nikov, A.Ye.; Filatov, Yu.V.; Shestopalov, Yu.N. (). Current status and prospects for developing ring laser methods for transmitting the size of a unit for plane angle, angular velocity and acceleration. IZTEA, no. 7, 1984, 27-29.

699. Boboshina, S.B.; Solov'yev, A.A. (MGU). Large-scale turbulent fluctuations in a convective eddy. VMUFA, no. 4, 1984, 63-66.

700. Bogdanova, N.Ye.; Larionov, M.M.; Fedorov, V.I. (FTI). Mathematical modeling of processes for heating electrons in a tokamak. FIPLD, no. 4, 1984, 676-683.

701. Brudzewski, K. (). Introduction to ellipsometry. Prace naukowe. Politechnika Warszawska. Chemia, no. 30, 1983, 184 p. (RZFZA, 84/8L18).

702. Bukshtam, B.M. (). Research on the oscillations of AT-cut quartz resonators with piezoelectric lens elements. AKZHA, no. 4, 1984, 438-443.

703. Bykov, A.M.; Volyar, A.V.; Gnatovskiy, A.V.; Kondakov, M.Ye.; Medved', N.V.; Savchenko, V.N. (SimGU). Role of temperature in phase transitions of a light wave field in multimode lightguides. ZTEFA, no. 8, 1984, 1552-1554.

704. Bykov, A.P. (). Device for remote measuring of deformation. OTIZD, no. 25, 1984, 1101672.

705. Cheremisinova, S.N. (). Generalized scheme for modeling a Vernier method for improving the accuracy of measuring instruments. Pribory tochnoy mekhaniki. Moskva, 1983, 113-119 (RZFZA, 84/7A395).

706. Churay, S.A.; Dzhun', I.V.; Vasil'yeva, Z.A. (UkrIIVKh). Laser system for geodetic control of the clearing of channel bottoms. TsNIIGAiK. Deposit, no. 125gd-84, 17 Jan 1984, 9 p. (DERUD, 7/84, 26).

707. Dikshteyn, I.Ye.; Lisovskiy, F.V.; Mansvetova, Ye.G.; Tarasenko, V.V. (). Using a phase transition method to determine the constant of anisotropy for epitaxial ferrite-garnet films with various crystallographic orientations. MKETA, no. 4, 1984, 337-347.

708. Dykhno, L.A. (IOAN). The structure of the shear flow for a stratified fluid with a free surface. IFAOA, no. 7, 1984, 622-629.

709. Gall', L.N.; Krasnov, N.V.; Kusner, Yu.S.; Nikolayev, V.I.; Prikhod'ko, V.G.; Simonova, G.V. (NIIGAiK). Electrohydrodynamic input of liquid substances into a mass-spectrometer. ZTEFA, no. 8, 1984, 1559-1571.

710. Gasyuk, V.S.; Yarovoy, L.K. (KPIA). Device for measuring the aperture characteristics of optical waveguides. VKPRB, no. 21, 1984, 5-6. (RZRAB, 84/7Ye320).

711. Geniatulin, A.M. (KurMI). Holographic interferometry study on the deformation state of planing cuts. NIIMash. Deposit, no. 94MSh-84, 2 Apr 1984, 26 p. (DERUD, 7/84, 144).

712. Gershun, M.A.; Pavlova, A.Ye.; Pospelov, G.V. (GOI). Measuring the thickness of transparent films by means of an interferometer without moving optical elements. OPMPA, no. 8, 1984, 42-44.

713. Golant, V.Ye. (). Methods of diagnostics based on the interaction of e-m radiation with a plasma. Osnovy fiziki plazmy. Vol. 2. Moskva, 1984, 534-582. (RZFZA, 84/7G326).

714. Golovko, B.A. (). Automatic photoelectric device with a laser interferometer. Problemy astrometrii. CVAstKon, 22nd, Moskva, 1-5 Jun 1981. GAISh. MGU. Moskva, 1984, 190-196.

715. Golovko, B.A.; Tauber, V.G. (). New method for installing measuring microscopes. Problemy astrometrii. CVAstKon, 22nd, Moskva, 1-5 Jun 1981. GAISh. MGU. Moskva, 1984, 217-219.

716. Golubev, A.N. (). Opposed-beam interferometer. CVNTKMOI, Khar'kov, 23-25 Nov 1983. Tezisy dokladov. Khar'kov, 1983, pp not given. (TVKED, 34/84, 271).

717. Gorshkov, A.S.; Dubrov, M.N. (). Study on a geophysical laser interferometer with a 12.5 meter baseline. RAELA, no. 8, 1984, 1638-1640.

718. Grishin, V.N.; Markovich, Yu.M.; Mishchenko, Yu.V. (MEI). Automatic interference refractometer. OTIZD, no. 32, 1984, 1111077.

719. Gur'yanov, A.N.; Gusovskiy, D.D.; Devyatykh, G.G.; Dianov, Ye.M.; Karasik, A.Ya; Kozlov, V.A.; Prokhorov, A.M.; Senatorov, A.K. (IOF). Effect of the radiation coherence length on phase noise in a fiberoptic rotation sensor. KVEKA, no. 7, 1984, 1469-1471.

720. Gushchin, Ye.M.; Lebedev, A.N.; Somov, S.V. (). Simulation of particle tracks by N2 laser radiation. ZTEFA, no. 7, 1984, 1366-1369.

721. Igil'manov, Zh.A. (MISI). Laser geodetic instruments in construction of underground service lines. TsNIIGAiK. Deposit, no. 126gd-84, 17 Jan 1984, 9 p. (DERUD, 7/84, 27).

722. Ivanov, I.Ts.; Lyashenko, V.I.; Pontecorvo, D.B.; Tudor, T.; Falomkin, I.V.; Khovanskiy, N.N.; Shcherbakov, Yu.A.; Yani, Ya.; Trifonov, A.; Troshev, T.; Khristov, V. (OIYaI). Helium-methane streamer chamber at 10 atmospheres with a holographic information display. OIYaI. Preprint, no. D1-83-798 [in English and Russian version], 1983, 10 p. (RZFZA, 84/8V541).

723. Jozanis, M.; Sikorski, A.; Synak, R. (). Laser device for studying a xerographic layer. Biul. inf. Nauki i techn. komput. Inst. masz. mat., no. 6, 1983, 3-13. (RZRAB, 84/7Ye441).

724. Kiselev, N.G. (LenKino). Principles of constructing devices to control wear in film copiers. TKTEA, no. 7, 1984, 3-11.

725. Kokilashvili, R.G.; Yeletskiy, V.V.; Pleskov, Yu.V. (IELAN). Photoemission of electrons in nonaqueous solutions: energy of interaction between delocalized electrons and solvents. ELKKA, no. 8, 1984, 1075-1080.

726. Kolesov, G.V.; Korzhenevich, I.M.; Lebedev, V.B.; Stepanov, B.M. (). Photochronographic input system with nonisochronic compensation of the E-O converter. PRTEA, no. 1, 1984, 170-172.

727. Kolobov, A.V.; Lyubin, V.M. (FTI). Photodiffusion of zinc in glassy arsenic sulfide. FTVTA, no. 8, 1984, 2522-2524.

728. Korobov, V.K.; Tarbeyev, Yu.V.; Gerasimov, N.P.; Pushkin, S.B. (). Creating a unitary etalon of time-frequency-length units. IZTEA, no. 7, 1984, 13-15.

729. Kozlov, V.L.; Shilov, A.F. (). Using avalanche photodiodes in a dynamic mixing mode in pulsed optical rangefinders. CVNTKMOI, Khar'kov, 23-25 Nov 1983. Tezisy dokladov. Khar'kov, 1983, pp not given. (TVKED, 34/84, 271).

730. Kozubskiy, E.V.; Moroz, V.I.; Skryl', I.I. (OIYaI). Scheme for processing holograms of particle tracks according to stereoprojections of a reconstructed model. OIYaI. Soobshcheniye, no. 10-83-848, 1983, 7 p. (RZFZA, 84/8V538).

731. Krakovetskiy, Yu.K.; Loysha, V.A.; Len'kov, S.I.; Matviyenko, G.G.; Popov, L.I. (). Optical study on conditions for photographic patrol of the aurora borealis in an area with industrial lighting. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 70-73.

732. Krauyalene, I.; Rimeyka, R.; Chiplis, D. (VilGU). Electrooptical bistability in an integrated optical interferometer with external feedback. PZTFD, no. 15, 1984, 911-914.

733. Krsek, J. (). Laser interferometer for measuring nonstationary changes in the index of refraction. Author's certificate Czechoslovakia, no. 199479, 30 Sep 1983. (RZRAB, 84/8Ye347).

734. Krucinska, I.; Frydrych, I.; Stypka, T. (). Auxiliary device for measuring the Poisson coefficient of fibers. Prace Instytutu przetwarzac i uzytkowac energii elektrycznej. Lublin, v. C, no. 11, 1983, 248-253. (RZFZA, 84/8A128).

735. Kruszewski, J. (). Ellipsometric studies on surfaces and near-surface structures. Prace naukowe. Politechnika Warszawska. Elektronika, no. 59, 1982, 98 p. (RZFZA, 84/8L20).

736. Lazarev, L.P.; Mirovitskaya, S.D. (MIREA). Study on a diffraction method for measuring the diameter of an optical fiber. IVUBA, no. 7, 1984, 88-93.

737. Lukianowicz, Cz. (). System for modeling the scattering of e-m waves by rough surfaces. Prace Instytutu przetwarzac i uzytkowac energii elektrycznej. Lublin, v. C, no. 11, 1983, 236-241. (RZFZA, 84/8L57).

738. Lukin, I.V.; Pushkarev, G.P.; Teslenko, V.V. (). Precision laser rangefinder. CVNTKMOI, Khar'kov, 23-25 Nov 1983. Tezisy dokladov. Khar'kov, 1983, pp not given. (TVKED, 34/84, 271).

739. Malikov, N.Yu. (). Digital signal processor for a laser gas analyzer. Elektronnyye pribory i skhemy dlya eksperimental'noy fiziki. MIFI. Moskva, Energoatomizdat, 1983, 32-35. (TVKED, 34/84, 420).

740. Medovikov, A.S. (). Precision rangefinder using a remote mode-locked laser. CVNTKMOI, Khar'kov, 23-25 Nov 1983. Tezisy dokladov. Khar'kov, 1983, pp not given. (TVKED, 34/84, 271).

741. Merkishin, V.G. (). Phase interference method for controlling the transparency of media with separated sections. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 243-245.

742. Minchenko, A.I.; Petnikov, V.G.; Kravtsov, Yu.A. (). Acoustic sensors using fiber lightguides. Problemy akustiki okeana. Moskva, Nauka, 1984, 205-216.

743. Nedelchev, N.I. (). Measuring three components of a combined displacement of the edges of a crack during static loading. PPCNB, no. 4, 1984, 62-68.

744. Pasynkov, V.I. (). Fiberoptic pressure sensor. Optoelektronnyye preobrazovateli i ustroystva otobrazheniya informatsii. Moskva, 1983, 17-21. (RZFZA, 84/8A321).

745. Parfova, Z.G.; Kornejev, A.A. (MIEM). Use of inverse holographic filters for problems in classifying structural elements of forest tracts. VINITI. Deposit, no. 1937-84, 4 Apr 1984, 5 p. (DEPD, 7/84, 231).

746. Polovinko, V.V.; Fomenko, L.A.; Abramov, O.I.; Yeremin, V.I.; Iobov, I.I. (). Remote method for determining the character of natural waters. OTiZD, no. 26, 1984, 1103119.

747. Pospelov, I.A. (). Study on the basic metrological characteristics of highly accurate laser rangefinders. CVNTKMOI, Khar'kov, 23-25 Nov 1983. Tezisy dokladov. Khar'kov, 1983, pp not given. (TVKED, 34/84, 271).

748. Reznikov, V.I.; Volkov, S.A.; Zel'venskiy, V.Yu. (NIFKhI). Experimental investigation of the field of flow velocities in a grainy layer by the method of laser Doppler anemometry. DANKA, v. 277, no. 6, 1984, 1392-1395.

749. Rimeyka, R.; Krauyalene, I.; Chiplis, D. (). Surface polarization of Ti-doped LiNbO3. FTVTA, no. 3, 1984, 952-954. (RZFZA, 84/8N716).

750. Rinkevichyus, B.S.; Sutorshin, V.N.; Tolkachev, A.V.; Chebunin, V.G. (MEI). Measurement of ultralow velocities by means of a laser Doppler anemometer. MEI. Trudy, no. 602, 1983, 56-60. (RZFZA, 84/7L1309).

751. Rozanov, N.N.; Sutyagin, A.N.; Khodova, G.V. (). Two-dimensional and three-dimensional forms of optical bistability. IANFA, no. 7, 1984, 1437-1440.

752. Runets, L.P. (). Narrowband and frequency-stable laser radiation sources with discrete tuning by wavelengths. CRNTShSL. Materialy. Minsk, 1983, 37-38. (RZRAB, 84/7Yel34).

753. Sergeyev, A.V.; Shornikov, O.Ye. (). Automatic instruments for measuring astronegatives. Problemy astrometrii. CVAstKon, 22nd, Moskva, 1-5 Jun 1981. GAISh. MGU. Moskva, 1984, 173-178.

754. Shafer, V.I. (). Method for identifying defects in phototemplates with repeating image fragments. OTIZD, no. 27, 1984, 1104550.

755. Sniadek, B.; Marek, S. (). Methods for presenting light diffraction in the classroom. Fizyka w szkole, no. 6, 1983, 340-349. (RZFZA, 84/8A111).

756. Sosnin, V.P.; Telegin, G.N. (). Experimental study on reflected signals in fiber ring interferometers. RAELA, no. 8, 1984, 1637-1638.

757. Sukholinin, V.L. (ISMSANGruz). Study on creep in plastic plates with concentrators using speckle interferometry. MKMAD, no. 4, 1984, 746-747.

758. Suynov, V.Kh.; Suynov, S.Kh.; Ossikovska, S.N. (). Holographic interferometry study on heat transfer in integrated circuits [in English]. CRABA, no. 11, 1983, 1383-1386. (RZFZA, 84/8L673).

759. Tarbeyev, Yu.V.; Krasnov, K.A.; Gerasimov, N.P. (). Fundamental physical constants and reproduction of units of physical magnitudes. IZTEA, no. 7, 1984, 10-13.

760. Vaganov, R.B.; Klevitskiy, B.G. (). San'yak effect in a ring fiber interferometer. RAELA, no. 3, 1984, 586-590. (RZFZA, 84/7L8).

761. Vandyshev, B.A.; Zeygman, L.L.; Koltakov, V.K.; Leonov, V.V.; Lupinskiy, M.M. (). Development of metrological provision for measuring mechanical and geometric magnitudes. IZTEA, no. 7, 1984, 6-7.

762. Vartanyan, E.S.; Ovsepyan, R.K.; Pogosyan, A.R.; Timofeyev, A.L. (IFI). Effect of gamma radiation on photorefractive and photoelectric properties of lithium niobate crystals. FTVTA, no. 8, 1984, 2418-2423.

763. Vitushkin, L.F. (). Gravitational radiation detectors based on laser interferometric systems. CRSPIDGV, Dubna, 7-9 June 1983. Trudy. Dubna, 1983, 119-128. (RZRAB, 84/8Ye440).

764. Vlasov, V.V.; Polonskiy, A.P. (). Using a laser to measure vibrations in units and assemblies of aircraft engines for their diagnostics. Optimizatsiya lazernoy tekhniki v grazhdanskoy aviatsii. Moskva, 1982, 85-88. (RVOTB, 84/2V145).

765. Volkov, Ye.D.; Perepelkin, N.F.; Suprunenko, V.A.; Arsen'yev, A.V.; Burchenko, P.Ya.; Vasil'yev, M.P.; Kotsubanov, V.D.; Kulaga, A.Ye.; Rubtsov, K.S.; Slavnyy, A.S. (KhFTI). Escaping electrons and turbulence in a current-bearing stellarator plasma. FIPLD, no. 4, 1984, 705-714.

766. Vyachin, V.V.; Mamonov, S.K. (KAl). Interferometer for monitoring the quality of optical surfaces. OTIZD, no. 27, 1984, 1104362.

767. Vygon, V.G.; Zharenov, A.V. (). Obtaining images by speckle interferometry. OPSPA, v. 56, no. 3, 1984, 563-564. (RZFZA, 84/8I502).

768. Yakovlev, V.A.; Nenov, D. (IKAN). Growing diphenyl crystals from vapor by using a periodically varying supersaturation method. KRISA, no. 4, 1984, 824-826.

769. Yegorov, V.K.; Zasavitskiy, I.I.; Maslov, V.A.; Mershavka, V.K.; Shotov, A.P. (). Detection of nitrogen oxides by c-w injection lasers. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 284-287.

770. Yevstigneyev, A.M.; Linnik, L.F.; Linnik, L.G.; Sal'kov, Ye.A.; Krasiko, A.N.; Snitko, O.V. (IPANUk). Anisotropy of mechanical stresses near the destroyed surface of germanium and its appearance in photo-electric and electromodulation properties. UFZHA, no. 7, 1984, 1097-1099.

771. Zatsepin, A.G.; Kaz'min, A.S.; Fedorov, K.N. (IOAN). Thermal and visible manifestations of large internal waves on the ocean surface. OKNOA, no. 4, 1984, 586-593.

772. Zelinskiy, I.N.; Chernykh, V.T.; Ishmukhametova, S.G. (). Holographic interferometry as a method for studying gas flows in a chamber with cylindrical protective walls. OPSPA, v. 57, no. 2, 1984, 313-318.

773. Zhuravel', F.A.; Kruglyak, Z.B.; Lukashchuk, S.N.; L'vov, V.S.; Predtechenskiy, A.A.; Savel'yev, V.V.; Cherepanov, V.B.; Chernykh, A.I.; Shafarenko, A.V. (). Computer technology in the life of a physics laboratory. AVMEB, no. 4, 1984, 52-58.

774. Zuyev, V.Ye.; Krakovetskiy, Yu.K.; Kabanov, M.V.; Popov, L.N.; Donchenko, V.A.; Legtyarev, V.I.; Len'kov, S.I.; Zyryanova, L.A. (). Optical methods for passive and active probing of the structure of the earth's crust. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 44-48.

2. Laser-Excited Optical Effects

775. Adomaytis, E.; Dobrovol'skis, Z.; Krotkus, A. (IFPV). Picosecond photoconductivity of InAs. FTPPA, no. 8, 1984, 1422-1425.

776. Andreyev, A.A. (). Population saturability curves in multiple-valley structures. VINITI. Deposit, no. 1570-84, 21 Mar 1984, 18 p. (RZFZA, 84/7N382).

777. Andreyev, A.A. (). Type of distribution function of free carriers of a semiconductor in a laser wave field near the resonance frequency. VINITI. Deposit, no. 1573-84, 21 Mar 1984, 8 p. (RZFZA, 84/7N381).

778. Andrianov, A.V.; Yaroshetskiy, I.D. (FTI). Magnetic field-induced circular photogalvanic effect in semiconductors. ZFPRA, v. 40, no. 2, 1984, 131-133.

779. Ayvazyan, Yu.M.; Parinov, S.T. (). Determination of the parameters for radiation absorption by F2(sup+) centers in LiF crystal. ZPSBA, vol. 41, no. 2, 1984, 302-304.

780. Belousov, A.V.; Keloglu, O.Yu.; Kovarskiy, V.A.; Sinyavskiy, E.P. (IPFANM). Electron excitational energy transfer in donor-acceptor vapors in an external e-m field. FTVTA, no. 7, 1984, 2096-2103.

781. Bibik, V.A.; Blonskiy, I.V.; Brodin, M.S.; Davydova, N.A. (IFANUk). Laser-induced structural phase transition in PbI2 single crystals. ZFPRA, v. 40, no. 2, 1984, 106-108.

782. Bolesta, I.M.; Gloskovskaya, N.K.; Goncharuk, V.Ye.; Kravchuk, I.M.; Lyskovich, A.B.; Turchak, R.M. (LvGU). Phonon-less luminescence of Mn2+ centers in cadmium bromide crystals. UFZHA, no. 8, 1984, 1253-1255.

783. Bykovnikov, A.A.; Ivanova, O.V.; Konstantinov, O.V.; L'vova, T.V.; Mezrin, O.A. (FTI). Kinetics in the increase of the rectifier photo-emf in a barrier structure. FTPPA, no. 7, 1984, 1256-1262.

784. Culik, F. (). Light-induced transmittance oscillation [in English]. Acta physica Universitatis comenianae. Bratislava, v. 23, 1983, 15-22. (RZFZA, 84/8L797).

785. Dzhidzhoyev, M.S.; Popov, V.K.; Platonenko, V.T.; Chugunov, A.V. (MGU). The absorption of ozone molecules in an intense field of a TEA CO2 injection laser. KVEKA, no. 7, 1984, 1357-1363.

786. Gadomskaya, I.V.; Gadomskiy, O.N.; Samartsev, V.V. (). Reversal of exciton flows in small-thickness crystals. OPSPA, v. 57, no. 2, 1984, 177-179.

787. Gafiychuk, V.V. (IPPMM). Thermal instability during homogeneous heating of semiconductors by pulsed long-wave radiation. FTVTA, no. 7, 1984, 2230-2231.

788. Gal'perin, Yu.M.; Kozub, V.I. (FTI). Exciton drag in piezosemiconductors with sound generation. FTVTA, no. 7, 1984, 1949-1954.

789. Gaysenok, V.A.; Klishchenko, A.P.; Sarzhevskiy, A.M.; Slobodyanyuk, A.I. (). Energy cumulation of singlet-by-singlet excited rhodamine 6M molecules in solution. OPSPA, v. 56, no. 2, 1984, 371-373. (RZFZA, 84/8L423).

790. Golubev, V.G.; Ivanov-Omskiy, V.I.; Minervin, I.G.; Osutin, A.V.; Polyakov, D.G. (FTI). Detection of anisotropy in the energy spectrum of electrons in GaAs. ZFPRA, v. 40, no. 2, 1984, 143-145.

791. Gorbachev, V.N.; Lebedeva, Ye.L.; Moldavskaya, V.M.; Stepanov, Yu.A. (). Effect of optical detection in CdS near a single-photon resonance. OPSPA, v. 57, no. 1, 1984, 66-70.

792. Grigor'yants, V.V.; Isayev, V.A.; Chamorovskiy, Yu.K. (IRE). The effect of temperature on a backscattered signal in polymer-clad quartz fiber lightguides. KVEKA, no. 8, 1984, 1663-1665.

793. Il'inova, T.M.; Kuzemchenko, T.A. (MGU). Photo-excitation of a direct gap semiconductor with varying effective masses of electrons and holes. VMUFA, no. 4, 1984, 3-9.

794. Karamaliyev, R.A. (). Formation of photoinduced periodic structures in matter. Voprosy vzaymodeystviya chastits. Baku, 1983, 95-100. (RZFZA, 84/8L951).

795. Korolev, A.M. (KIYaI). Effect of electron shells in an atom on the effective charge of a neutron in the nucleus. UFZHA, no. 7, 1984, 981-985.

796. Korolevich, A.N.; Khayrullina, A.Ya. (). Fluctuations in the intensity of the radiation scattered by disk-like and spherical particles, at various packing densities. ZPSBA, vol. 41, no. 2, 1984, 316-318.

797. Kostyshin, M.T.; Severin, V.S. (IPANUk). Photostimulated diffusion in a photosensitive semiconductor-metal system. FOOSD, no. 15, 1984, 94-100.

798. Kulik, I.O.; Omel'yanchuk, A.N.; Tuluzov, I.G.; Sarkisyants, T.Z. (FTINT). High frequency rectification in microscopic junctions between normal metals. FNTAA, no. 8, 1984, 882-885.

799. Levdanskiy, V.V. (). Effect of laser radiation on the flow of a rarified gas through porous solids. PZTFD, no. 14, 1984, 867-870.

800. Malashkevich, G.Ye.; Pyatosin, V.Ye.; Tsvirko, M.P. (). Nonlinear effects in ytterbium complex compounds under high-power nanosecond excitation. OPSPA, v. 57, no. 1, 1984, 50-54.

801. Mamayev, Yu.A.; Makarov, B.S.; Mishin, A.N.; Petrov, V.N.; Yakovlev, V.N.; Yashin, Yu.P. (LPI). Effect of electron spin polarization on the secondary electron emission process. FTVTA, no. 7, 1984, 2181-2182.

802. Martynova, Ye.N.; Platonenko, V.T.; Sukhareva, N.A. (). Role of collisions and vibrational energy exchange during excitation of polyatomic molecules in a quasi-continuous spectral region in an IR laser radiation field. Khimicheskaya fizika, no. 3, 1984, 353-358. (RZFZA, 84/7D215).

803. Melikyan, R.A.; Ovnanyan, P.S. (YeFI). Feasibility of photoemission of highly polarized electrons from GaAs coated by a layer of EuS. IAAFA, no. 4, 1984, 225-228.

804. Nikitenko, V.A.; Sviridov, S.D.; Chukichev, M.V.; Kuz'mina, I.P. (). The low-temperature cathode luminescence of ZnO monocrystals. ZPSBA, vol. 41, no. 1, 1984, 149-151.

805. Oreshkin, P.T.; Klochkov, A.Ya.; Zubkov, M.V.; Patrin, S.V. (RRTI). Long-duration relaxation of nonequilibrium conductivity in semiconductor surface barrier structures. FTPPA, no. 8, 1984, 1503-1505.

806. Parkhomenko, A.I.; Shalagin, A.M. (IAESOAN). Photoinduced drift during hyperfine splitting of levels. IAESOAN. Preprint, no. 225, 1984, 22 p. (RZFZA, 84/8L1026).

807. Semak, D.G.; Mikla, V.I.; Kikineshi, A.A. (UzhGU). Electron-hole processes in photosensitive chalcogenide glasses. FCOSL, no. 15, 1984, 82-94.

808. Subachyus, D.Ye. (IFIV). Photogradient emf in InSb during microwave heating and cooling of an electron gas. FTPPA, no. 8, 1984, 1434-1437.

809. Trifonov, A.S.; Avdeyev, A.N.; [illegible] .G.; Kravchenko, V.B.; Filimonova, L.M. (IRE). Optically induced anisotropy in Bi-containing ferrite garnet films. PZTFD, no. 16, 1984, 991-99[illegible].

810. Tsurkan, O.I.; Shtelen, O.M.; [illegible]. Photostimulated area of negative resistance of inelastic scattering of electrons in semiconductors. PSSBB, v. B122, no. 1, 1984, 361-366. (RZFZA, 84/8N[illegible]).

811. Vernikovskiy, V.V.; [illegible], M.; [illegible], V.Ye. (). Analysis with a [illegible] computer of multi-component [illegible] by optical methods. AVMEB, no. 4, 1984, 38-44.

812. Veselago, V.G.; [illegible]; [illegible], R.R.; Mosinyadze, V.T. (FIAN). Effect of surface on the magnitude of the photoferromagnetic effect in cadmium chromium selenide. FTVTA, no. 7, 1984, 2203-2205.

813. Zhizhin, G.N.; Sychugov, V.A.; Silin, V.I.; Yakovlev, V.A. (). An investigation of the reflection of surface electromagnetic waves by a corrugated metallic surface. FVFFA, no. 7, 1984, 1411-1416.

814. Zuyev, V.S.; Logunov, O.A.; Startsev, A.V.; Stoylov, Yu.Yu. (FIAN). The dynamics of the low-threshold stimulated temperature scattering of light in gases near the critical point. KVEKA, no. 7, 1984, 1462-1464.

3. Laser Spectroscopy

815. Abdel' Aziz, Yu.M.; Shekhmamet'yev, R.I. (LGU). Effect of optical anisotropy on inverted hydrogen series lines in bismuth tri-iodide crystals. FTVTA, no. 7, 1984, 2072-2074.

816. Akhmarova, M.V.; Gaikina, I.P.; Ivanov, S.G.; Stroganova, N.S. (). Intracavity laser spectrometer for analyzing rare-earth elements in solution. CRNTShSI. Materialy. Minsk, 1983, 135-137. (RZRAB, 84 Ye371).

817. Akhmezhanov, F.A.; Polushkin, I.N.; Khanin, Ya.I.; Yazenkov, V.V. (IPF). Measuring the local values of the uniform width of a spectral line in a plasma. FIKI, no. 4, 1984, 865-869.

818. Akopyan, I.Kh.; Novikov, B.V. (NIIFL). Effect of compositional inhomogeneities on phase transition in silver iodomercurate crystals. FTVTA, no. 7, 1984, 1994-1999.

819. Alenichev, V.S.; Guletskiy, N.N.; Komarova, Z.V.; Oshenkov, S.V.; Petrov, A.A. (LGU). Possibilities of spectrum analysis of geologic samples during their atomization by c-w laser radiation. VLUFB, no. 4, 1983, 86-88. (TVKEI, 34 84, 510).

820. Alov, D.I.; Gubarev, S.I.; Timofeyev, V.B. (IFTT). Spin-flip Raman scattering in a degenerate electron gas in magnetically mixed Cd(1-x)Mn(x)S:In crystals. ZETFA, v. 86, no. 3, 1984, 1124-1131.

821. Anufrik, S.S.; Zeylikovich, I.S.; Kukushkin, V.G.; Pul'kin, S.A. (). A posteriori nonlinear spectroscopy with an intracavity cell. OPSPA, v. 57, no. 1, 1984, 91-94.

822. Arkhipenko, D.K.; Bobovich, Ya.S.; Tsenter, M.Ya. (). Raman scattering spectra of natural brookites (TiO(sub2)). ZPSBA, vol. 41, no. 2, 1984, 304-306.

AD-A191 366 BIBLIOGRAPHY OF SOVIET LASER DEVELOPMENTS NUMBER 72 JULY - AUGUST 1984(U) DEFENSE INTELLIGENCE AGENCY WASHINGTON DC DIRECTORATE FOR SCI.. NOV 85 2/2

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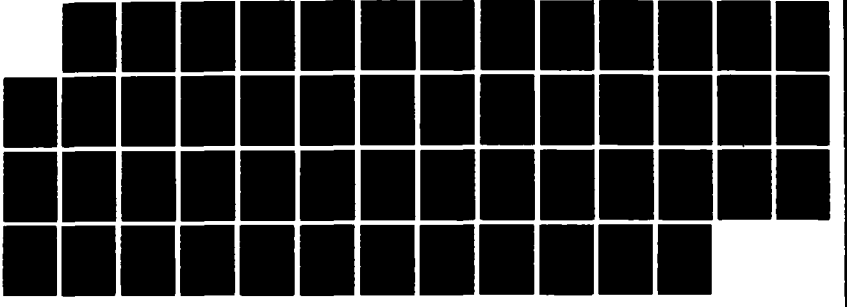

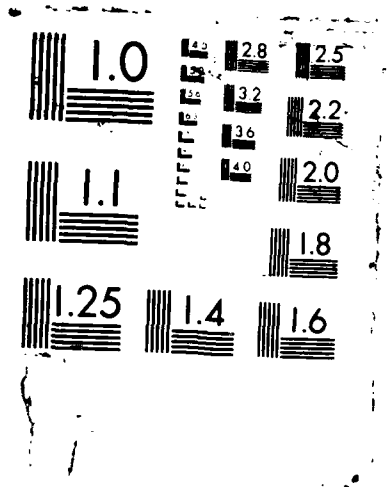
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823. Aslanyan, L.S.; Petrosyan, A.A.; Sarkisyan, G.K.; Chilingaryan, Yu.S. (). Determining the upper moments of the distribution function of liquid crystal molecules by active hyper-Raman spectroscopy. ZPSBA, v. 40, no. 3, 1984, 422-425. (RZFZA, 84/7L1268).

824. Baltrameyunas, R.A.; Vaytkus, Yu.Yu.; Gavryushin, V.I. (VilGU). Absorption of light by nonequilibrium two-photon-generated local carriers in ZnTe single crystals. ZETFA, v. 87, no. 1, 1984, 74-83.

825. Baltrunas, L.; Gadonas, R.; Danelyus, R.; Orshevskis, G.; Piskarskas, A; Sirutkaytis, V.; Smil'gyavichyus, V.; Yuozapavichyus, A. (VilGUNTsLI). A laser differential picosecond spectrometer. KVEKA, no. 7, 1984, 1500-1502.

826. Baran, V.M.; Kononchuk, G.L.; Yakunov, A.V. (). Transitions between the components of the fine structure of neon during the inelastic collisions of neon and helium atoms. ZPSBA, vol. 41, no. 1, 1984, 128-134.

827. Belyanin, V.B. (). Some problems in modern spectral instrument manufacture. CRNTShsL. Materialy. Minsk, 1983, 116-125. (RZFZA, 84/7L622).

828. Belyayev, V.S.; Valyanskiy, S.I.; Komissarov, A.V.; Matafonov, A.P.; Pashinin, P.P.; Smirnov, V.V.; Fabelinskiy, V.I. (). Remote local measurement of vibrational and rotational temperatures of nitrogen in the flow of an electric-arc plasmatron. PZTFD, no. 4, 1984, 231-234. (RZFZA, 84/7G357).

829. Berezin, V.I.; Berezin, V.V. (). Review of references for vibration frequencies of pyrimidine and its deutero substituents and their interpretation based on theoretical calculations. Issledovaniya po nelineynoy optike i spektroskopii: spektroskopiya molekul, primesnykh tsentrov i lazernykh sred. SGU. Saratov, 1983, 54-64. (RZFZA, 84/8L138).

830. Berezin, V.I.; Berezin, V.V. (). Theoretical study on vibrational spectra of 2,2'-dipyridyl complexes with zinc and cobalt halides. Issledovaniya po nelineynoy optike i spektroskopii: spektroskopiya molekul, primesnykh tsentrov i lazernykh sred. SGU. Saratov, 1983, 47-53. (RZFZA, 84/8L146).

831. Berik, Ye.B.; Mikhkel'soo, V.T. (). Automated excimer laser spectrometer. CRNTShSL. Materialy. Minsk, 1983, 185-197. (RZRAB, 84/7Ye372).

832. Braun, P.A.; Miroshnichenko, G.P. (). Quasi-energy method in problems of molecular spectroscopy. Molekulyarnaya spektroskopiya, no. 6, Leningrad, 1983, 54-67. (RZFZA, 84/8L771).

833. Brodskiy, I.A.; Zaytsev, B.I.; Stanevich, A.Ye. (). Spectrometer with nonlinear frequency conversion based on a dual-element bolometer. Teplovyye priyemniki izlucheniya. CVSTPIzl, 4th, Moskva, Feb 1984. Tezisy dokladov. GOI. Leningrad, 1983, 126-127. (RZRAB, 84/8Ye418).

834. Buchachenko, A.L. (). Review of the book "Advances in Laser Spectroscopy" edited by F. Arecchi, F. Strumia, and H. Walter. N.Y.: Plenum Press, 1983. ZFKHA, no. 7, 1984, 1848.

835. Bukin, O.A.; Stolyarchuk, S.Yu.; Tyapkin, V.A. (). Measuring the Raman spectra of liquid water in the atmosphere. CVSLAZAt, 8th. Tezisy dokladov. Part 1. IOF. Tomsk, 1984, 288-290.

836. Bulanov, V.M.; Ignatov, V.V.; Nikitina, V.Ye.; Finkel', A.G. (). Infrared spectra of microorganisms. Issledovaniya po nelineynoy optike i spektroskopii: spektroskopiya molekul, primesnykh tsentrov i lazernykh sred. SGU. Saratov, 1983, 74-83. (RZFZA, 84/8L173).

837. Burakov, V.S.; Misakov, P.Ya.; Naumenkov, P.A.; Raykov, S.N.; Uzunbadzhakov, A.S.; Khomyak, A.S. (). The Analiz-2 intracavity laser spectrometer with resonant detection of narrow absorption lines. CRNTShSL. Materialy. Minsk, 1983, 129-131. (RZFZA, 84/7L652).

838. Burakov, V.S.; Yeliseyev, S.I.; Korotkin, I.R.; Lopatko, V.N.; Misakov, P.Ya.; Naumenkov, P.A.; Nemchenko, V.A.; Raykov, S.N.; Rubinov, A.N.; Serov, V.V.; Sidorov, V.A.; Spitsyn, I.G.; Uzunbadzhakov, A.S.; Chaykovskiy, Ye.V. (). The Minsk-2 automated intracavity laser spectrometer. CRNTShSL. Materialy. Minsk, 1983, 126-128. (RZFZA, 84/7L643).

839. Bykov, Yu.V.; Gitlin, M.S.; Novikov, M.A.; Polushkin, I.N.; Khanin, Ya.I.; Shcherbakov, A.I. (IPF). Measurement of gas temperature by intracavity laser spectroscopy. ZTEFA, no. 7, 1984, 1310-1314.

840. Chernyavskiy, A.F.; Yakushev, A.K.; Urban, O.P.; Nikolayev, V.A.; Pirogov, S.G. (). Automation of instruments for recording and processing of spectroscopic information. CRNTShSL. Materialy. Minsk, 1983, 198-200. (RZFZA, 84/7L663).

841. Chirvonyy, V.S.; Dzhagarov, B.M.; Gurinovich, G.P. (). Excited electron states and ultrafast relaxation processes in molecules of Fe-porphyrines and their analogs. IANFA, no. 3, 1984, 472-479. (RZFZA, 84/7L1286).

842. Dvornikov, S.S.; Knyukshto, V.N.; Solov'yev, K.N.; Stanishevskiy, I.V.; Starukhin, A.S.; Turkova, A.Ye. (). Determining the position of the S(sub2) level of chlorophyll molecules by polarized luminescence and fine-structure spectroscpy. OPSPA, v. 57, no. 2, 1984, 234-238.

843. Emanuel', N.M.; Tsvetkov, Yu.D. (). The chemistry and physics of free radicals. VANSA, no. 8, 1984, 119-128.

844. Fabelinskiy, V.I. (IOF). Coherent anti-Stokes Raman spectroscopic diagnostics of populations and relaxation processes of vibrational and rotational states of molecules in gases. IOF. Dissertation, 1984, 15 p.

845. Gakamskiy, D.M.; Nemkovich, N.A.; Tomin, V.I. (). Nanosecond spectrofluorimeter using a distributed-feedback dye laser pumped by an N2 laser. CRNTShsL. Materialy. Minsk, 1983, 157-159. (RZFZA, 84/7L642).

846. Ganeyev, A.A.; Novikov, V.A.; Turkin, Yu.I. (LGU). Spectral phase effects and selective detection of compounds with iodine as an example. ZTEFA, no. 7, 1984, 1392-1394.

847. Goncharik, S.V.; Yershov-Pavlov, Ye.A.; Chubrik, N.I.; Shimanovich, V.D. (). Television system for computer-aided recording and processing of spectra of spatially inhomogeneous objects. CRNTShsL. Materialy. Minsk, 1983, 215-217. (RZFZA, 84/7L686).

848. Gorban', I.S.; Gubanov, V.A.; Lysenko, V.G.; Pletyushkin, A.A.; Timofeyev, V.B. (KGU). Fine structure of indirect exciton S-states in cubic silicon carbide. FTVTA, no. 8, 1984, 2282-2288.

849. Gorelik, V.S.; Grigor'yev, A.P.; Sushchinskiy, M.M. (FIAN). Differential opalescence of quasi-elastic scattering of light near the point of phase transition in crystals. KRSFA, no. 7, 1984, 11-14.

850. Gorelik, V.S.; Khashimov, R.N.; Vidanov, A.P. (FIAN). Raman scattering in epitaxial films of phosphide/gallium arsenide solid solutions. FTPPA, no. 8, 1984, 1403-1407.

851. Gubarev, S.I.; Shepel', B.N. (IFTT). Spin correlations in an exciton-impurity complex - magnetic impurity system in magnetically mixed Zn(1-x)Mn(x)Te crystals. FTVTA, no. 8, 1984, 2529-2531.

852. Gubskiy, V.I.; Konon, M.R.; Misakov, P.Ya.; Rubinov, A.N.; Svetlov, P.I.; Slesar', A.S.; Khlopkov, N.S.; Shadurskiy, G.P. (). System for recording and processing data from a laser spectrometer. CRNTShSL. Materialy. Minsk, 1983, 201-205. (RZFZA, 84/7L653).

853. Gudymenko, L.F.; Gule, Ye.G. (IPANUk). Space-time characteristics and mechanism of nonlinear emission from A(II)B(VI) single crystals. UFZHA, no. 7, 1984, 1085-1087.

854. Gushchin, Ye.M.; Zemtsov, S.S.; Lebedev, A.N.; Somov, S.V. (). Two-quantum ionization of complex organic molecules by the radiation of a N(sub2)-laser. ZPSBA, vol. 41, no. 2, 1984, 206-211.

855. Ivanov, A.P.; Khayrullina, A.Ya. (). Third All-Union Conference on the Spectroscopy of Scattering Media, Batumi, 3-5 Oct 1983. ZPSBA, v. 41, no. 1, 1984, 165-166.

856. Ivanova, N.L.; Golyanov, V.M.; Dolgiy, D.I. (). Optical properties of diamond-like amorphous carbon films. ZPSBA, vol. 41, no. 1, 1984, 134-138.

857. Kachanov, A.A.; Plakhotnik, T.V. (). Intracavity spectrometer with a traveling-wave ring dye laser. Reduction of the detection threshold. CRNTShSL. Materialy. Minsk, 1983, 132-134. (RZFZA, 84/7L651).

858. Kapitanov, V.A.; Kochanov, V.P.; Lopasov, V.P.; Tyryshkin, I.S. (IOA). Experimental determination of the cross-sections of absorption lines in the vicinity of 590 nm. DANKA, v. 277, no. 2, 1984, 351-353.

859. Kharlamov, B.M.; Al'shits, Ye.I.; Personov, R.I. (ISAN). Hole-burning and transformation of wide absorption band profiles for molecules in solutions. IANFA, no. 7, 1984, 1313-1321.

860. Khashimov, R.N.; Begishev, A.R.; Gorelik, V.S.; Mokerov, V.G. (FIAN). Raman scattering in molecular ion implanted silicon layers. FIAN. Preprint, no. 174, 1984, 11 p.

861. Khrolova, O.R.; Kunavin, N.I.; Komlev, I.V.; Tavrizova, M.A.; Trofimova, S.I.; Madiy, V.A.; Petukhov, V.A. (). The spectral-luminescent properties of phosphorylmethyl derivatives of 3-aminobenzanthrone. ZPSBA, vol. 41, no. 1, 1984, 53-57.

862. Kochanov, V.P.; Sinitsa, L.N.; Solodov, A.M. (). A laser spectrometer for measuring the parameters of the absorption lines of gases in the 1.06 micron region. ZPSBA, vol. 41, no. 2, 1984, 335-338.

863. Kononov, E.Ya.; Podobedova, L.I.; Churilov, S.S. (). Spectra of 3-3 transitions in AgXXII-SnXXY ions of the FeI isoelectronic series. OPSPA, v. 57, no. 1, 1984, 26-29.

864. Korotayev, O.N.; Donskoy, Ye.I.; Glyadkovskiy, V.I.; Kopranenkov, V.N. (). Effect of selective bleaching and dynamic dip in the absorption spectra of porphyrins. OPSPA, v. 57, no. 1, 1984, 145-147.

865. Kostyuchenko, L.S.; Sverdlov, L.M. (). Calculation and interpretation of vibrational spectra of styrole and its deutero substituents. Issledovaniya po nelineynoy optike i spektroskopii: spektroskopiya molekul, primesnykh tsentrov i lazernykh sred. SGU. Saratov, 1983, 108-117. (RZFZA, 84/8L137).

866. Kraysler, O.D.; Goldovskiy, V.L.; Pitkin, A.I. (). Possibility of using laser correlation spectroscopy to determine the components in gas mixtures. OPSPA, v. 57, no. 2, 1984, 179-181.

867. Kristallov, L.V.; Tsvetkova, M.P.; Fotiyev, A.A. (UNTsIKh). Vibrational spectra of metavanadate alkaline earth metals. ZNOKA, no. 7, 1984, 1723-1728.

868. Kupriyanov, D.V.; Sokolov, I.M. (). Polarization of the ground state of an ensemble of alkali atoms pumped by intense monochromatic light. OPSPA, v. 57, no. 1, 1984, 143-145.

869. Leshenyuk, N.S.; Nevdakh, V.V. (). Kinetics for ignition of luminescence in CO2 in the 4.3 micron region. ZPSBA, vol. 41, no. 1, 1984, 48-53.

870. Luk'yanenko, S.F.; Makogon, M.M. (). An analysis of the content of NO(sub2) by the intracavity laser spectroscopy method, using a ruby laser. ZPSBA, vol. 41, no. 2, 1984, 211-215.

871. Mamakina, S.V.; Ryzhkova, K.A.; Bel'govskiy, I.M.; Gurari, M.L.; Yenikolonyan, N.S. (). Holographic correlation spectroscopy study on slow nonequilibrium motions in polymer materials. Khimicheskaya fizika, no. 5, 1984, 748-753. (RZFZA, 84/8L675).

872. Neporent, B.S. (). Fast relaxations and structure of electron levels in polyenes. IANFA, no. 3, 1984, 453-461. (RZFZA, 84L1049).

873. Nevdakh, V.V. (IFANB). The spontaneous emission probabilities and collisional widths for lines of the laser transitions 00(sup0)1-[10(sup0)0, 02(sup0)0] (subI,II) of CO2 molecules. KVEKA, no. 8, 1984, 1622-1627.

874. Ninoyan, Zh.O.; Sapondzhyan, S.O.; Sarkisyan, G.S. (IFI). Broadening of the absorption spectral lines of atomic potassium under the action of laser radiation. KVEKA, no. 8, 1984, 1561-1564.

875. Novak, I.I.; Namestnikov, A.B. (). Time dependence of the lattice frequency shift in deformed silicon. OPSPA, v. 57, no. 1, 1984, 62-65.

876. Osipenko, V.A.; Pliska, D.K.; Vishnevskiy, Ye.V. (). Automation of the Ramalog-4 Raman spectrometer. CRNTShSL. Materialy. Minsk, 1983, 212-214. (RZFZA, 84/7L660).

877. Ovchinnikov, I.V.; Serebrennikov, L.V.; Mal'tsev, A.A. (MGU). Raman spectra of Ga(sub2)O, In(sub2)O and Tl(sub2)O molecules isolated in argon matrices at 15 K. VMUKA, no. 2, 1984, 157-161. (RZFZA, 84/8L238).

878. Polibanov, Yu.N.; Poluektov, S.N. (FIAN). Polariton Fermi resonance in lithium niobate crystals. KRSFA, no. 8, 1984, 32-35.

879. Remizov, I.A. (). Numerical study of the flow and of heat- and mass-exchange in a melt during crystal growth by the Czochralski method. Isothermal liquid. FKOMA, no. 4, 1984, 67-74.

880. Romanovskiy, Yu.V.; Personov, R.I. (). Polarization of phonon wings in luminescence spectra of selectively excited complex molecules. OPSPA, v. 57, no. 1, 1984, 5-8.

881. Rzhevskiy, A.M.; Buslov, D.K. (). The Elektronika-D3-83 minicomputer automated complex for processing IR spectra. CRNTShSL. Materialy. Minsk, 1983, 218-219. (RZFZA, 84/7L661).

882. Shamrov, N.I. (). Nonresonant cooperative Raman scattering in an extended system. OPSPA, v. 57, no. 1, 1984, 43-49.

883. Shaverdova, V.G.; Dolzhenko, M.V. (). Generalized Alentsev-Fock study on the absorption spectra of mordant pure yellow dye. OPSPA, v. 57, no. 1, 1984, 34-36.

884. Shchepina, L.I.; Lobanov, B.D.; Maksimova, N.T.; Kostyukov, V.M. (). "Perturbed" F2 centers in LiF crystals. OPSPA, v. 57, no. 2, 1984, 368-370.

885. Sidorov, N.K. (). Study on the concept of efficient polarizability for describing molecular optical phenomena in condensed media. Issledovaniya po nelineynoy optike i spektroskopii: spektroskopiya molekul, primesnykh tsentrov i lazernykh sred. SGU. Saratov, 1983, 7-37. (RZFZA, 84/8L206).

886. Solov'yev, K.N.; Tsvirko, M.P.; Krasauskas, V.V.; Pyatosin, V.Ye.; Stel'makh, G.F. (). Pico- and subpicosecond relaxation processes in lanthanoid porphyrine complexes. IANFA, no. 3, 1984, 434-439. (RZFZA, 84L1052).

887. Strizhevskiy, V.L.; Sugakova, N.A. (). Broadening of the Raman spectrum in finite molecular crystals. OPSPA, v. 57, no. 2, 1984, 260-264.

888. Szostak, M.M. (). Vibronic interactions in vibrational spectra and nonlinear electrooptic properties of molecular crystals. Prace naukowe Instytutu chemii organicznej i fizycznej Politechniki wroclawskiej, no. 25, 1983, 187 p. (RZFZA, 84/7L1158).

889. Tvoronovich, L.N. (). The Kraudion-1: an automated research complex for selection and processing of spectroscopic information by means of the Elektronika-60 control microcomputer. CRNTShSL. Materialy. Minsk, 1983, 220-222. (RZFZA, 84/7L662).

890. Valakh, M.Ya.; Kosatskiy, I.; Litvinchuk, A.P.; Azhnyuk, Yu.N. (IPANUk). Effect of superionic properties on the electrical and optical characteristics of lead fluoride. FTVTA, no. 8, 1984, 2278-2281.

891. Velichko, A.G. (). Study on systematic errors in determining the parameters of the actual spectral line contour, caused by the spherical aberration of the lens at the output of a Fabry-Perot interferometer. Issledovaniya po nelineynoy optike i spektroskopii: spektroskopiya molekul, primesnykh tsentrov i lazernykh sred. SGU. Saratov, 1983, 90-97. (RZFZA, 84/8L530).

892. Vettegren', V.I.; Yeron'ko, S.B.; Yeremeyeva, Ye.P.; Ovchinnikov, V.M.; Smirnova, Z.A.; Chmel', A.Ye. (). Decay of molecular chains during non-resonant interaction of a polymer with optical radiation. ZPSBA, vol. 41, no. 1, 1984, 125-128.

893. Voropay, Ye.S.; Gaysenok, V.A.; Kirsanov, A.A.; Sayechnikov, V.A.; Sarzhevskiy, A.M. (). Spectral polarization characteristics of luminescence in solutions of organic molecules under conditions of light quenching. OPSPA, v. 57, no. 2, 1984, 230-233.

894. Yevseyev, A.V.; Krivtsun, V.M.; Kuritsyn, Yu.A.; Makarov, A.A.; Puretskiy, A.A.; Ryabov, Ye.A.; Snegirev, Ye.P.; Tyakht, V.V. (ISAN). Infrared absorption spectrum for CrO(sub2)Cl(sub2) molecules prepared in a high-lying state of a vibrational quasi-continuum. ZETFA, v. 87, no. 1, 1984, 111-124.

895. Yevseyev, A.V.; Yevseyev, I.V.; Reshetov, V.A. (IAE). Photon echo in gases. Three-level systems. IAE. Preprint, no. 3849/1, 1983, 59 p. (RZFZA, 84/8L1042).

896. Yevseyev, A.V.; Yevseyev, I.V.; Reshetov, V.A. (IAE). Possibility of studying the structure of resonant transitions by photon echo. DANKA, v. 275, no. 1, 1984, 64-67.

897. Zadkov, V.N.; Koroteyev, N.I.; Rychev, M.V.; Fedorov, A.B. (MGU). Spectroscopy of coherent Raman scattering saturation in molecular gases. VMUFA, no. 4, 1984, 27-31.

898. Zaretskiy, Yu.G.; Krasin'kova, M.V.; Kurbatov, G.A.; Ukhanov, Yu.I.; Shmartsev, Yu.V. (LPI). Spectrum of IR reflection in bismuth titanate. FTVTA, no. 7, 1984, 2233-2235.

899. Zasavitskiy, I.I.; Kosichkin, Yu.V.; Kryukov, P.V.; Nadezhdinskiy, A.I.; Prokhorov, A.M.; Stepanov, Ye.V.; Tishchenko, A.Yu.; Shotov, A.P. (IOF). Use of medium IR diode lasers for spectral gas analysis. ZTEFA, no. 8, 1984, 1542-1551.

900. Zuyev, V.Ye.; Ponomarev, Yu.N.; Tikhomirov, B.A. (IOA). Change in absorption for the vibrational-rotational transitions of dipole molecules under the action of linearly polarized resonant radiation. DANKA, v. 277, no. 2, 1984, 347-350.

J. BEAM-TARGET INTERACTION

1. Miscellaneous Targets

901. Anisimov, V.N.; Arutyunyan, R.V.; Baranov, V.Yu.; Bol'shov, L.A.; Borzenko, V.L.; Velikhov, Ye.P.; Il'in, A.I.; Kovalevich, A.M.; Kraposhin, V.S.; Malyuta, D.D.; Matveyeva, L.A.; Pis'mennyy, V.D.; Sebrant, A.Yu.; Stepanov, Yu.Yu.; Stepanova, M.A. (IAE). Doping of solid surfaces from an optical breakdown plasma in liquid and gas. IAE. Preprint, no. 3931/9, 1984, 17 p. (RZFZA, 84/7L1240).

902. Archibasov, I.M.; Kulichkova, Z.S. (). Laser device for scribing ceramic micro-circuit substrates. PRSUB, no. 7, 1984, 33-34.

903. Bazakutsa, P.V.; Maslennikov, V.L.; Prokhorov, A.M.; Sychugov, V.A.; Tishchenko, A.V. (FIAN). Diffraction mechanism for the formation of periodic structures during the action of radiation on absorbing condensed media. KVEKA, no. 7, 1984, 1447-1454.

904. Bogomolov, A.A.; Dabizha, T.A.; Sergeyeva, O.N. (KalinGU). Thermally originated repolarization in triglycine sulfate group single crystals. IANFA, no. 6, 1984, 1184-1188.

905. Bunkin, F.V.; Kirichenko, N.A. (IOF). Phase transition in a chemically active medium, triggered by laser radiation. DANKA, v. 277, no. 6, 1984, 1357-1361.

906. Dan'shchikov, Ye.V.; Lebedev, F.V.; Ryazanov, A.V. (). Optical breakdown in an erosion flare. KVEKA, no. 7, 1984, 1424-1430.

907. Gorbunov, A.V.; Yemelin, V.Ya.; Klassen, N.V. (IFTT). Study on local damage to NaCl by CO2 laser pulses. ZTEFA, no. 7, 1984, 1383-1386.

908. Gus'kov, A.P. (IFTT). Method for producing grooves in a glass substrate. OTIZD, no. 29, 1984, 1106798.

909. Katulin, V.; Gureyev, D. (). Repairing components by laser surfacing. TVOOB, no. 6, 1984, 8-9.

910. Khvostikova, V.D.; Yanushkevich, V.A.; Prutskov, Ye.G. (). An electron microscope study of silicon after loading by a laser shock wave. FKOMA, no. 4, 1984, 53-55.

911. Murkulova, G.Ya.; Moldavskaya, V.M.; Yevseyev, S.N.; Stepanov, Yu.A. (LGU). Laser annealing of SmCO5 films obtained by ion plasma sputtering. ZTEFA, no. 7, 1984, 1340-1342.

912. Pisarenko, G.S.; Leonets, V.A. (IPP). Experimental device for studying the effect of coherent radiation on optically transparent materials. CRSPIDGV, Dubna, 7-9 June 1983. Trudy. Dubna, 1983, 117-118. (RZRAB, 84/8Ye441).

913. Sowoidnich, K.; Zscherpe, G.; Hillmann, W. (). Method for laser processing within a medium. Patent GDR, no. 202824, 15 Oct 1983. (RZRAB, 84/8Ye402).

914. Svirid, V.A.; Bogomolov, N.F.; Khotyaintsev, S.N. (KPIA). Laser and spark welding fabrication of fiberoptic transmission line couplers. VKPRB, no. 21, 1984, 22-24. (RZRAB, 84/7Ye242).

915. Timan, B.L.; Fesenko, V.M. (). Thermoelastic stresses in a disk heated by laser radiation. FKOMA, no. 4, 1984, 111-114.

916. Tosch, R.; Gruber, H.; Fritzsche, K.; Hofmann, R.; Gebhardt, T. (). Direct modeling of heat conductivity during laser processing. FGRTA, no. 3, 1984, 119-120. (RZFZA, 84/8L1017).

917. Uglov, A.A. (). 95th Seminar on The Physics and Chemistry of Materials Processing by Concentrated Energy Fluxes, Moscow, 14 Oct 1982. FKOMA, no. 4, 1984, 141.

2. Metal Targets

918. Andriyakhin, V.N.; Vasil'yev, V.Yu.; Yedneral, N.V.; Kletskin, Ya.G.; Kuz'menko, G.G.; Mazorra, Kh.A. (). Surface passivation of iron-based alloys after laser doping by chromium. Poverkhnost': Fizika, khimiya, mekhanika, no. 4, 1984, 145-148. (RZRAB, 84/8Ye399).

919. Arutyunyan, R.V.; Baranov, V.Yu.; Bol'shov, L.A.; Borzenko, V.L.; Kovalevich, A.M.; Stepanov, Yu.Yu. (). Doping of solid surfaces from a laser breakdown plasma in liquids. Poverkhnost': Fizika, khimiya, mekhanika, no. 4, 1984, 149-151. (RZFZA, 84/8Ye825).

920. Bobyrev, V.A.; Bunkin, F.V.; Kirichenko, N.A.; Luk'yanchuk, B.S.; Simakin, A.V.; Shafeyev, G.A. (). Oxidation kinetics and change in the surface state of metals under laser heating. Poverkhnost': Fizika, khimiya, mekhanika, no. 4, 1984, 134-144. (RZRAB, 84/8Ye400).

921. Bunkin, F.V.; Kirichenko, N.A.; Luk'yanchuk, B.S.; Simakin, A.V.; Shafeyev, G.A.; Nanai, L.; Hevesi, I. (). Effect of c-w laser radiation on the characteristics of vanadium oxidation. APAHA, no. 1-2, 1983, 111-118. (RZFZA, 84/7L1235).

922. Bykovskiy, Yu.A.; Nevolin, V.N.; Fominskiy, V.Yu.; Kulikauskas, V.S.; Mamontov, A.N.; Babayeva, L.A.; Buttsev, B.I. (). Properties of surface melts after pulsed laser and ion doping of steel. Poverkhnost': Fizika, khimiya, mekhanika, no. 3, 1984, 134-139. (RZRAB, 84/7Ye421).

923. Igoshin, V.I; Kurochkin, V.I. (FIANKuy). Laser vaporization of a metal in a gaseous atmosphere. KVEKA, no. 8, 1984, 1555-1561.

924. Kirillov, V.M. (). The surface temperature of a metal under the action of a light source. FKOMA, no. 4, 1984, 39-45.

925. Konov, V.I.; Ral'chenko, V.G.; Uglov, S.A.; Mirkin, L.I. Synthesis of nitrides of metals by periodic pulsed CO2 laser radiation. FKOMA, no. 4, 1984, 140.

926. Kovalenko, V.S.; Golovko, L.F.; Krasavin, A.P.; Kichigin, A.F.; Sergiyenko, N.I.; Postrigan', Yu.V. (). Laser hardening of cutters for coal extraction machines. TEOPA, no. 3, 1984, 51-52.

927. Melyukov, V.V.; Uglov, A.A. (). Optimal control of a thermal welding process and of the thermal treatment of a plate by a mobile surface heat source. FKOMA, no. 4, 1984, 9-15.

928. Rykalin, N.N.; Uglov, A.A.; Smurov, I.Yu.; Volkov, A.A. (IMET). Features of the laser heating of a metal in an oxidizing atmosphere. DANKA, v. 277, no. 6, 1984, 1395-1399.

929. Sadovskiy, V.D.; Tabatchikova, T.I.; Umova, V.M.; Osintseva, A.L. (IFM). Phase and structural transformation during laser heating of steel. Effect of tempering hardened steel on recrystallization during laser heating. FMMTA, no. 4, 1984, 812-817.

930. Sultanov, M.A. (). The adequacy of the process of the ablation of metals during the action of laser radiation and of a shock-compressed plasma. FKOMA, no. 4, 1984, 35-38.

931. Yeremenko, A.A.; Kozlova, Ye.K.; Portnyagin, A.I.; Romanchenko, A.N.; Filippov, A.Ye. (MGU). The effect of optical radiation on the process of chemical nickel plating. KVEKA, no. 8, 1984, 1677-1679.

3. Dielectric Targets

932. Lewowska, L.; Szarska, St.; Rysiakiewicz-Pasek [initial not given]. (). Thermostimulated exoelectron emission from the surface of laser-irradiated silicate glasses. OPAPB, no. 3, 1983, 313-316. (RZRAB, 84/7Ye453).

933. Lysikov, Yu.I. (). The possibility of oscillations developing during the heating of a transparent solid dielectric by optical radiation. ZPMFA, no. 4, 1984, 56-59.

934. Vladimirtsev, Yu.V.; Glebova, N.N.; Golenishchev-Kutuzov, V.A.; Zhashkov, A.A.; Yermakov, G.A.; Migachev, S.A.; Rez, I.S. (KazFTI). Kinetics of optical breakdown in litnium niobate. PZTFD, no. 14, 1984, 840-843.

4. Semiconductor Targets

935. Baranov, O.B.; Mikhaylutsa, Ye.V. (LETI). Study on the mobility of current carriers in ion-doped layers of germanium under laser annealing. LETI. Izvestiya, no. 342, 1984, 31-33.

936. Bryukner, F.; Kerstan, F. (). Electrooptical gates based on semiconductors. KVEKA, no. 7, 1984, 1344-1348.

937. Fattakhov, Ya.V.; Bayazitov, R.M.; Aganov, R.V.; Sainov, N.A.; Khaybullin, I.B.; Shtyrkov, Ye.I. (KazFTI). Laser annealing of ion-doped GaAs layers. VINITI. Deposit, no. 2096-84, 6 Apr 1984, 22 p. (RZFZA, 84/7Ye796).

938. Gafiychuk, V.V.; Kiyak, S.G.; Plyatsko, G.V. (IPPMM). Instability of the crystallization front during laser epitaxy of semiconductors. UFZHA, no. 7, 1984, 1066-1070.

939. Kiyak, S.G.; Shukhostanov, A.K.; Savitskiy, G.V.; Gonov, S.Zh.; Gafiychuk, V.V. (IPPMM). Dynamics of recrystallization and redistribution of impurities in semiconductors under millisecond laser action. FTPPA, no. 8, 1984, 1446-1449.

940. Koval'chuk, Yu.V.; Kuchinskiy, V.I.; Myachin, V.Ye.; Sokolov, I.A.; Skopina, V.I. (FTI). Dual-wave laser annealing of semiconductors. ZTEFA, no. 7, 1984, 1408-1410.

941. Regel', A.R.; Seregin, P.P. (FTI). Moessbauer studies on impurity atoms in semiconductors. FTPPA, no. 7, 1984, 1153-1172.

942. Skryshevskiy, V.A.; Kil'chitskaya, S.S.; Strikha, V.I.; Matviychuk, A.S. (KGU). Effect of pulsed laser radiation on the structural properties of Al-n-Si. Optoelektronika i poluprovidnikovaya tekhnika, no. 6, 1984, 14-16.

943. Veselago, V.G.; Minakov, A.A.; Rudov, S.G. (IOF). Direct observation of a photoinduced change of magnetocrystalline anisotropy in CdCr(sub2)Se(sub4):Ga. ZETFA, vol. 87, no. 2, 1984, 629-634.

944. Voronkov, V.V.; Voronkova, G.I.; Kalinushkin, V.P.; Murin, D.I.; Omel'yanovskiy, E.M.; Pervova, L.Ya.; Prokhorov, A.M.; Raykhshteyn, V.I. (IOF). New type of impurity defects in semi-insulating GaAs. FTPPA, no. 8, 1984, 1363-1366.

945. Zadorozhnaya, L.A.; Lazarenko, M.A.; Lukina, I.G.; Givargizov, Ye.I. (IKAN). Producing cadmium sulfide films on amorphous substrates by artificial epitaxy. KRISA, no. 4, 1984, 817-818.

K. PLASMA GENERATION AND DIAGNOSTICS

946. Afanas'yev, Yu.V.; Khachiyan, K.A. (FIAN). Radiation from a planar layer of a laser plasma. FIAN. Preprint, no. 279, 1983, 13 p. (RZFZA, 84/8G94).

947. Afrosimov, V.V.; Bobashev, S.V.; Golubev, A.V.; Simanovskiy, D.M.; Shmayenok, L.A. (FTI). Radiation from a recombining laser beryllium plasma in the far dispersion zone. PZTFD, no. 16, 1984, 1017-1020.

948. Akhtyrchenko, Yu.V.; Bochkarev, N.N.; Vysotskiy, Yu.P.; Garin, O.V.; Zuyev, V.Ye.; Kopytin, Yu.D.; Krasnenko, N.P.; Kuryapin, A.I.; Mironov, V.L.; Pogodayev, V.A.; Pokasov, V.V.; Sidorov, B.G. (). Diagnostics of atmospheric optical breakdown plasma parameters by acoustic measurement. CVSLAZAt, 8th. Tezisy dokladov. Part 2. IOF. Tomsk, 1984, 114-118.

949. Anan'in, O.B.; Bykovskiy, Yu.A.; Novikov, I.K.; Stupitskiy, Ye.L. (MIFI). The magnetic field at the front of a laser plasma which is dispersing into a background medium. KVEKA, no. 7, 1984, 1471-1473.

950. Avrorin, Ye.N.; Yeroshenko, V.A.; Zaretskiy, A.I.; Zuyev, A.I.; Kormer, S.B.; Kochemasov, G.G.; Kryuchenkov, V.B.; Lykov, V.A.; Murugov, V.M.; Ryadov, A.V.; Senik, A.V.; Sukharev, S.A. (). Results of experiments and calculations on the irradiation of spherical microtargets with the radiation of a terawatt iodine laser. ZETFA, vol. 87, no. 2, 1984, 417-421.

951. Barabash, L.Z.; Bykovskiy, Yu.A.; Golubev, A.A.; Kozyrev, Yu.P.; Koshkarev, D.G.; Krechet, K.I.; Papitskiy, Yu.Ya.; Latyshev, S.V.; Khaydarov, R.T.; Sharkov, B.Yu.; Shumshurov, A.V. (ITEF). Characteristics of a laser plasma as a source of ions for a heavy-ion inertial fusion driver. ITEF. Preprint, no. 12, 1983, 19 p. (RZFZA, 84/7G104).

952. Barkhudarov, E.M.; Gelashvili, G.V.; Gumberidze, G.G.; Razmadze, D.I.; Taktakishvili, M.I. (IFANG). Characteristics of a laser-emission discharge generated by radiation from a pulsed CO2 laser. FIPLD, no. 4, 1984, 757-761.

953. Basov, N.G.; Danilychev, V.A. (). Lasers for thermonuclear fusion. CRSPIDGV, Dubna, 7-9 Jun 1983. Trudy. Dubna, 1983, 101-116. (RZFZA, 84/8L1015).

954. Basov, N.G.; Vasil'yev, B.I.; Grasyuk, A.Z.; Losev, L.L.; Meshalkin, Ye.A. (FIAN). Laser plasma detection of the difference frequency of two light waves. ZFPRA, v. 40, no. 2, 1984, 114-116.

955. Basova, T.A.; Bykovskiy, Yu.A.; Nevolin, V.N. (MIFI). Generation of ion beams with a high-phase current density from an unstable plasma used to produce ion sources. ZTEFA, no. 8, 1984, 1628-1631.

956. Baykov, E.U.; Bashkin, A.S.; Orayevskiy, A.N. (FIAN). Study on the possibility of suppressing uncontrolled radiation in powerful chemical hydrofluoride amplifiers of short light pulses. KVEKA, no. 8, 1984, 1601-1609.

957. Bogdanov, D.D.; Ivanov, G.N.; Kolesov, I.V.; Orlova, O.A.; Rodin, A.M.; Timakov, V.A.; Ter-Akop'yan, G.M. (OIYaI). The LIDIA-M highly sensitive mass-spectrometer. OIYaI. Soobshcheniye, no. 13-83-840, 1983, 7 p. (RZFZA, 84/7V304).

958. Bogdanov, D.D.; Orlova, O.A.; Del Portillo, R.; Rodin, A.M.; Timakov, V.A.; Ter-Akop'yan, G.M.; Chelnokov, L.P. (OIYaI). The LIDIA-M automated system for controlling and measuring mass spectra in a mass-spectrometer. OIYaI. Soobshcheniye, no. 13-83-841, 1983, 5 p. (RZFZA, 84/8V317).

959. Boyko, V.A.; Bryunetkin, B.A.; Bunkin, F.V.; Derzhiyev, V.I.; Dyakin, V.M.; Mayorov, S.A.; Skobelev, I.Yu.; Fayenov, A.Ya.; Fedosimov, A.I.; Shilov, K.A.; Yakovlenko, S.I. (IOF). The effect of the structure of a shock wave front on the nature of the luminescence of a recombining laser plasma. KVEKA, no. 7, 1984, 1332-1337.

960. Boyko, V.A.; Gavrilov, V.V.; Pergament, M.I.; Skobelev, I.Yu.; Fayenov, A.Ya.; Khakhalin, S.Ya., Yaroslavskiy, A.I. (). Inverted population of the levels of Al XII ions in a recombining laser plasma. KVEKA, no. 8, 1984, 1657-1660.

961. Bunkin, F.V.; Derzhiyev, V.I.; Mayorov, S.A.; Yakovlenko, S.I. (IOF). Radiative supercooling of a volumetrically ionized plasma of multicharged ions. IOF. Preprint, no. 221, 1984, 39 p.

962. Bunkin, F.V.; Derzhiyev, V.I.; Subbotin, V.I.; Troyanskiy, V.B.; Kharitonov, V.V.; Chikin, K.R.; Yakovlenko, S.I. (FIAN). Problems of a gas-phase reactor-pumped laser. FIAN. Preprint, no. 199, 1984, 29 p.

963. Bunyakova, M.Yu.; Viktorov, D.S.; Peregudov, G.V.; Ragozin, Ye.N. (FIAN). Dependence of the spectrum of nitrogen-like ions on the electron density in a laser plasma. FIAN. Preprint, no. 204, 1984, 25 p.

964. Bychenkov, V.Yu.; Gradov, O.M.; Chokparova, G.A. (FIAN). Generation of quasi-stationary magnetic fields in a turbulent laser plasma. FIPLD, no. 4, 1984, 741-747.

965. Drozhzhin, V.S.; Chudinov, V.P. (). A method of sorting microspheres for laser thermonuclear fusion. KVEKA, no. 8, 1984, 1597-1601.

966. Fedorov, V.B. (IOF). Slow heating of a laser plasma, and optical discharges. IOF. Dissertation, 1984, 42 p.

967. Gus'kov, S.Yu.; Rozanov, V.B.; Trebuleva, L.Ye. (FIAN). The transfer of energy by alpha-particles in a laser plasma placed in a magnetic field. KVEKA, no. 8, 1984, 1575-1581.

968. Kamrukov, A.S.; Kashnikov, G.N.; Kozlov, N.P.; Kuznetsov, S.G.; Opekan, A.G.; Orlov, V.K.; Protasov, Yu.S.; Yakimenko, A.N. (MVTU). A powerful quartz plasmadynamic source of short-wavelength and vacuum-ultraviolet radiation with a brightness temperature of about 40,000 K. KVEKA, no.8, 1984, 1627-1636.

969. Kas'yanov, Yu.S.; Leonov, Yu.S.; Pleshkov, G.M. (FIAN). Highly efficient conversion of laser radiation to soft x-rays in a plasma. ZTEFA, no. 7, 1984, 1386-1387.

970. Kiselevskiy, L.I.; Shkurko, V.V. (). Study on the dynamics of disintegration of a laser plasma at medium and large angles of ejection. VBSFA, no. 1, 1984, 41-46. (RZFZA, 84/7G102).

971. Kologrivov, A.A. (FIAN). Experimental study on x-radiation from targets heated by a high-power laser plasma. FIAN. Dissertation, 1984, 19 p.

972. Komarov, V.M.; Mezenov, A.V.; Migel', V.M.; Ponomareva, N.V. (). Thermoelectric detectors for measuring the radiation of a laser plasma. Teplovyye priyemniki izlucheniya. CVSTPIz1, 4th, Moskva, Feb 1984. Tezisy dokladov. GOI. Leningrad, 1983, 46-47. (RZRAB, 84/8Ye306).

973. Konov, V.I.; Prokhorov, A.M.; Chapliyev, N.I. (IOF). Plasma formation at metal mirrors of CO2 lasers. IANFA, no. 8, 1984, 1591-1599.

974. Limpoukh, Y.; Rozanov, V.B. (FIAN). Lateral structures (filaments, spicules, and jets) in a laser plasma. KVEKA, no. 7, 1984, 1416-1424.

975. Mel'nikova, T.S.; Pikalov, V.V. (ITF). Emission tomography of a non-steady state plasma. TVYTA, no. 4, 1984, 625-633.

976. Vasin, B.L.; Danilov, A.Ye.; Kalashnikov, M.P.; Mikhaylov, Yu.A.; Orlov, V.V.; Rode, A.V.; Sklizkov, G.V.; Fedotov, S.I.; Tsvetkov, M.Yu.; Shishkina, L.I. (FIAN). Calorimetric measurements of the energy balance for laser radiation during heating of spherical targets in the "Del'fin-1" installation. KVEKA, no. 7, 1984, 1313-1318.

977. Vorob'yev, V.S.; Khomkin, A.L. (IVTAN). Threshold for appearance of various states in a nonequilibrium ionization plasma near a surface, induced by the effect of laser radiation on metal. PZTFD, no. 15, 1984, 953-957.

978. Yegorov, S.Ye.; Letokhov, V.S.; Shibanov, A.N. (ISAN). A mechanism for the formation of ions during the irradiation of a surface of molecular crystals by pulsed laser radiation. KVEKA, no. 7, 1984, 1393-1403.

979. Zaretskiy, A.I.; Kirillov, G.A.; Kormer, S.B.; Kochemasov, G.G.; Murugov, V.M.; Sukharev, S.A. (). Study on the "Iskra-4" facility. IANFA, no. 8, 1984, 1611-1618.

III. MONOGRAPHS, BOOKS, CONFERENCE PROCEEDINGS

980. All-Union Conference on Metrology of Neutron Radiation in Reactors and Accelerators, 3rd. Papers. Vol. 1. CVSMNIRU, 3rd. Materialy. Tom 1. TsNIIAtominform. Gosstandart. GosKIAte. VNIFTRI. Moskva, 1983, 285 p. (RZFZA, 84/8V4).

981. All-Union Symposium on Laser and Acoustic Probing of the Atmosphere, 8th. Summaries of the reports. (In two parts). CVSLAZAt, 8th. Tezisy dokladov. IOA. NSKNO. NSRR. Tomsk, 1984. Chast' 1, 378 p. Chast' 2, 394 p.

982. Andrushko, L.M. (). Nonuniform dielectric optical waveguides. Dielektricheskiye neodnorodnyye volnovody opticheskogo diapazona. Kiyev, Tekhnika, 1983, 144 p. (TVKED, 34/84, 964).

983. Borbat, A.M.; Rud'ko, S.N. (KGU). Presentation of problems in ray and wave optics. Osobennosti izlozheniya voprosov luchevoy i volnovoy optiki. KGU. Kiyev, 1983, 74 p. (Knizhnaya letopis'. Dopolnitel'nyy vypusk. Knigi i broshyury, no. 8, 1984, 10573).

984. Bunkin, F.V. (ed). (FIAN). Multiphoton processes in molecules. Mnogofotonnyye protsessy v molekulakh. FIAN. Trudy, no. 146, 1984, 189 p.

985. Cherkasova, A.A.; Fostenko, K.A. (compilers). (). Use of lasers in measuring technology. Domestic and foreign literature for 1980-1982 (Jan-Feb). Bibliographic index. Primeneniye lazerov v izmeritel'noy tekhnike. Otechestvennaya i inostrannaya literatura za 1980-1982 (yanv.-fevr.) gg. Bibliograficheskiy ukazatel'. Moskva, Znaniye, 1983, 256 p. (TVKED, 34/84, 198).

986. Conference on Nuclear Spectroscopy and Structure of the Atomic Nucleus, 34th, Alma-Ata, 17-20 Apr 1984. Summaries of the reports. CSYaSSAt, 34th, Alma-Ata, 17-20 Apr 1984. Tezisy dokladov. Leningrad, Nauka, 1984, 618 p. (RZFZA, 84/8V1).

987. Danilevich, V.V.; Chernyavskiy, A.F. (). Time measurements in experimental physics. Vremennyye izmerenia v fizicheskom eksperimente. Moskva, Energoatomizdat, 1984, 101 p. (RZFZA, 84/8A23).

988. Delone, N.B.; Kraynov, V.P. (). Atoms in a strong light field. Atom v sil'nom svetovom pole. 2nd edition revised. Moskva, Energoatomizdat, 1984, 224 p.

989. Dneprovskiy, Ye.V.; Larchenko, Yu.V.; Leonov, A.M. (ITK). Laser devices for information output. Lazernyye ustroystva vyvoda informatsii. ITK. Minsk, 1983, 119 p. (TVKED, 34/84, 500).

990. Fistul', V.I. (). Introduction to semiconductor physics. Vvedeniye v fiziku poluprovodnikov. 2nd edition revised and enlarged. Moskva, Vysshaya shkola, 1984, 352 p. (RZFZA, 84/8A21).

991. Gavaleshko, N.P.; Gorley, P.N.; Shenderovskiy, V.A. (authors); Ivanov-Omskiy, V.I. (ed). (IFANUk). Narrowband semiconductors. Production and physical properties. Uzkozonnyye poluprovodniki. Polucheniye i fizicheskiye svoystva. Kiyev, Naukova dumka, 1984, 288 p.

992. Gordeyev, L.S.; Strimbling, S.I.; Shrayfel'd, T.Ya. (). Light-beam recording. Svetoluchevaya registratsiya. Series: Elektroizmeritel'nyye pribory, no. 26, Moskva, Energoatomizdat, 1983, 144 p. (TVKED, 34/84, 204).

993. Holographic methods for information storage, conversion and processing. Holograficheskiye metody khraneniya, preobrazovaniya i obrabotki informatsii. FPI. Frunze, 1983, 105 p. (RZFZA, 84/7L829).

994. Ivanov, V.A. (). Metrological provision for gyro instruments. Metrologicheskoye obespecheniye giropriborov. Leningrad, Sudostroyeniye, 1983, 180 p. (TVKED, 34/84, 176).

995. Kabanov, M.V. (IOA). Scattering of optical waves by disperse media. Part 1. Discrete particles. Rasseyaniye opticheskikh voln dispersnymi sredami. Chast' 1. Otdel'nyye chastitsy. IOA. Tomsk, 1983, 135 p. (RZFZA, 84/7A40).

996. Kabanov, M.V. (ed). (IOA). Refraction of optical waves in the atmosphere. Refraktsiya opticheskikh voln v atmosfere. IOA. Tomsk, 1982, 186 p. (TVKED, 34/84, 872).

997. Kaczmarek, F. (). Fundamentals of laser action. Podstawy dzialania laserow. Warszawa, PWN, 1983, 223 p. (RZFZA, 84/8L798).

998. Kats, M.L. (ed). (SGU). Studies on nonlinear optics and spectroscopy: spectroscopy of molecules, impurity centers and laser media. Issledovaniya po nelineynoy optike i spektroskopii: spektroskopiya molekul, primesnykh tsentrov i lazernykh sred. SGU. Saratov, 1983, 136 p. (RZFZA, 84/8L1).

999. Klimkov, Yu.M.; Khoroshev, M.V. (MIIGAiK). Laser instruments. Lazernyye pribory. MIIGAiK, Moskva, 1983, 171 p. (Knizhnaya letopis'. Dopolnitel'nyy vypusk. Knigi i broshyury, no. 8, 1984, 10738).

1000. Kolpakov, V.V. (TGU). Quantum radiophysics. Part 1. Theoretical fundamentals. Kvantovaya radiofizika. Chast' 1. Teoreticheskiye osnovy. TGU. Tomsk, 1984, 222 p. (Knizhnaya letopis'. Dopolnitel'nyy vypusk. Knigi i broshyury, no. 8, 1984, 10739).

1001. Lasers. Bibliographic index of new acquisitions to the library of the Institute of High Temperatures, Academy of Sciences USSR. Lazery. Bibliograficheskiy ukazatel' novykh postupleniy v biblioteku IVTAN. No. 89, Moskva, 1983, 67 p. (TVKED, 34/84, 501).

1002. Lasers in coherent optics and spectroscopy. Scientific and practical conference. Summaries of the reports. CNPKLKOS. Tezisy dokladov. Grodno, 1983, 75 p. (TVKED, 34/84, 284).

1003. Lazareva, S.K. (ed). (). Laser technology for land reclamation machinery. Conference, Krasnodar, Sep 1982. Papers. CPLTIMMa, Krasnodar, Sep 1982. Materialy. Moskva, publication house not given, 1983(1984), 72 p. (KNLTA, 32/84, 27303).

1004. Matveyev, I.N.; Protopopov, V.V.; Troitskiy, I.N.; Ustinov, N.D. (). Laser ranging. Lazernaya lokatsiya. Moskva, Mashinostroyeniye, 1984, 272 p.

1005. Matveyev, I.N.; Safronov, A.N.; Troitskiy, I.N.; Ustinov, N.D. (authors); Ustinov, N.D. (ed). (). Adaptation in optical information systems. Adaptatsiya v informatsionnykh opticheskikh sistemakh. Moskva, Radio i svyaz', 1984, 344 p.

1006. Nikogosyan, D.N.; Letokhov, V.S. (ISAN). Nonlinear laser photophysics, photochemistry and photobiology of nucleic acids. Nelineynaya lazernaya fotofizika, fotokhimiya i fotobiologiya nukleinovykh kislot. ISAN. Troitsk, 1984, 247 p. (RZFZA, 84/8L1002).

1007. Novikov, I.I.; Gordov, A.Ye (eds). (). Methods and means of optical pyrometry. Metody i sredstva opticheskoy pirometrii. Moskva, Nauka, 1983, 144 p. (TVKED, 34/84, 172).

1008. Pankratov, N.A. (ed). (GOI). Thermal radiation detectors. Teplovyye priyemniki izlucheniya. CVSTPIzl, 4th, Moskva, Feb 1984. Tezisy dokladov. GOI. Leningrad, 1983, 149 p. (RZFZA, 84/8L575).

1009. Podobed, V.V. (ed). (). Problems of astrometry. All-Union Astronomic Conference, 22nd, Moscow, 1-5 June 1981. Problemy astrometrii. CVAstKon, 22nd, Moskva, 1-5 Jun 1981. GAISh. MGU. Moskva, 1984, 341 p.

1010. Popov, A.K. (IFSOAN). Introduction to nonlinear spectroscopy. Vvedeniye v nelineynuyu spektroskopiyu. IFSOAN. Novosibirsk, Nauka, 1983, 273 p. (TVKED, 34/84, 1075).

1011. Prishivalko, A.P. (). Optical and thermal fields within light-scattering particles. Opticheskiye i teplovyye polya vnutri svetorasseivayushchikh chastits. Minsk, Nauka i tekhnika, 1983, 190 p. (RZFZA, 84/8L733).

1012. Rezvyy, R.R. (). Ellipsometry in microelectronics. Ellipsometriya v mikroelektronike. Moskva, Radio i svyaz', 1983, 120 p. (TVKED, 34/84, 222).

1013. Shkuryayev, P.G. (ed). (). Conference on Raman spectroscopy. Regional Conference on Raman Scattering of Light, Shushenskoye, 24-28 May 1983. Summaries of the reports. Soveshchaniye po spektroskopii KR. CKKKRass, Shushenskoye, 24-28 May 1983. Tezisy dokladov. Krasnoyarsk, 1983, 323 p. (TVKED, 34/84, 282).

1014. Shnyrev, G.D. (ed). (). Optoelectronic instruments in space experiments. Optiko-elektronnyye pribory v kosmicheskikh eksperimentakh. Leningrad, Nauka, 1983, 173 p. (TVKED, 34/84, 187).

1015. Tverdokhlebov, G.N.; Kushnarenko, S.G.; D'yachenko, V.S.; Tsyganov, V.P. (KhAI). Use of lasers in aircraft manufacturing technology. Ispol'zovaniye lazerov v tekhnologii samoletostroyeniya. KhAI. Khar'kov, 1983, 68 p. (Knizhnaya letopis'. Dopolnitel'nyy vypusk. Knigi i broshyury, no. 8, 1984, 11171).

1016. Vlokh, O.G. (LvGU). Electrodynamics in nonlinear optics. Elektrodinamika v nelineynoy optike. LvGU. L'vov, 1983, 83 p. (Knizhnaya letopis'. Dopolnitel'nyy vypusk. Knigi i broshyury, no. 8, 1984, 10574).

1017. Voytovich, A.P. (IFANB). Magnetooptics of gas lasers. Magnitooptika gazovykh lazerov. Minsk, Nauka i tekhnika, 1984, 208 p.

1018. Zharov, V.P.; Letokhov, V.S. (authors); Bonch-Bruyevich, A.M. (ed). (ISAN). Laser optoacoustic spectroscopy. Lazernaya optiko-akusticheskaya spektroskopiya. ISAN. Moskva, Nauka, 1984, 320 p.

IV. SOURCE ABBREVIATIONS

(Note: CTC = cover-to-cover translation available)

AENGA	Atomnaya energiya (CTC)
AKZHA	Akusticheskiy zhurnal (CTC)
APAHA	Acta physica academiae scientiarum hungaricae
AVMEB	Avtometriya (CTC)
BITOA	Bild und Ton (East Berlin)
CKCFA	Ceskoslovensky casopis pro fysiku
CKKKRass	Krayevaya konferentsiya po kombinatsionnomu rasseyaniyu sveta
CNPKLKOS	Nauchno-prakticheskaya konferentsiya: Lazery v kogerentnoy optike i spektroskopii
CPLTIMMa	Konferentsiya: Primeneniye lazernoy tekhniki pri ispol'zovanii meliorativnykh mashin
CRABA	Bulgarska akademiya na naukite. Doklady
CRNTShSL	Respublikanskaya nauchno-tekhnicheskaya shkola-seminar: Lazernoye opticheskoye i spektral'noye priborostroyeniye
CRSPIDGV	Rabocheye soveshchaniye po problemam izlucheniya i detektirovaniya gravitatsionnykh voln
CSYaSSAt	Soveshchaniye po yadernoy spektroskopii i strukture atomnogo yadra
CVAkuKon	Vsesoyuznaya akusticheskaya konferentsiya
CVAstKon	Vsesoyuznaya astrometricheskaya konferentsiya
CVKOLaze	Vsesoyuznaya konferentsiya: Optika lazerov
CVNTKMOI	Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya: Metrologicheskoye obespecheniye izmereniy bol'shikh dlin.
CVSLAZAt	Vsesoyuznyy simpozium po lazernomu i akusticheskomu zondirovaniyu atmosfery

CVSMNIRU	Vsesoyuznoye soveshchaniye po metrologii neytronnogo izlucheniya na reaktorakh i uskoritelyakh
CVSTPIzl	Vsesoyuznyy seminar po teplovym priyemnikam izlucheniya
DANKA	Akademiya nauk SSSR. Doklady (CTC)
DERUD	Deponirovannyye nauchnyye raboty (formerly: Deponirovannyye rukopisi. Bibliograficheskiy ukazatel'. Yestyesvennyye i tochnyye nauki, tekhnika)
EKNTB	Elektronika (Warsaw)
EKSTA	Elektricheskiye stantsii (CTC)
EKVZA	Elektrosvyaz' (CTC)
ELKCA	Elektrotechnicky casopis
ELKKA	Elektrokhimii (CTC)
ETFMB	Akademiya nauk Estonskoy SSR. Izvestiya. Fizika, matematika
FGRTA	Feingeraetetechnik
FGVZA	Fizika goreniya i vzryva (CTC)
FIPLD	Fizika plazmy (Moskva, AN SSSR) (CTC)
FKOMA	Fizika i khimiya obrabotki materialov
FMMTA	Fizika metallov i metallovedeniye (CTC)
FNTED	Fizika nizkikh temperatur (Kiyev) (CTC)
FOOSD	Fundamental'nyye osnovy opticheskoy pamyati i sredy
FTPPA	Fizika i tekhnika poluprovodnikov (CTC)
FTVTA	Fizika tverdogo tela (CTC)
IAAFA	Akademiya nauk Armyanskoy SSR. Izvestiya. Fizika
IANFA	Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya (CTC)

IBULA	Informatsionnyy byulleten' Sovetskoy antarkticheskoy ekspeditsii. Arkticheskiy i antarkticheskiy NII. Leningrad
IFAOA	Akademiya nauk SSSR. Izvestiya. Fizika atmosfery i okeana (CTC)
IVUBA	Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye (CTC)
IVUZB	Izvestiya vysshikh uchebnykh zavedeniy. Radioelektronika
IVYRA	Izvestiya vysshikh uchebnykh zavedeniy. Radiofizika (CTC)
IZFMB	Akademiya nauk Moldavskoy SSR. Izvestiya. Seriya fiziko-tekhnicheskikh i matematicheskikh nauk
IZTEA	Izmeritel'naya tekhnika (CTC)
JMKOA	Jemna mechanika a optika
KNLTA	Knizhnaya letopis'
KRISA	Kristallografiya (CTC)
KRSFA	Kratkiye soobshcheniya po fizike (CTC)
KVEKA	Kvantovaya elektronika (journal, Moskva) (CTC)
MKETA	Mikroelektronika. AN SSSR (Moskva) (CTC)
MKMAD	Mekhanika kompozitnykh materialov (Riga)
OIPOB	Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki (now in two separate journals: OTIZD and POTZD)
OKNOA	Okeanologiya (CTC)
OPAPB	Optica applicata (Poland)
OPMPA	Optiko-mekhanicheskaya promyshlennost' (CTC)
OPSPA	Optika i spektroskopiya (CTC)
OTIZD	Otkrytiya, izobreteniya (formerly included in OIPOB)

PAUKA	Pomiary, automatyka, kontrola
POTZD	Promyshlennyye obraztsy, tovarnyye znaki (formerly included in OIPOB)
PPCNB	Problemy prochnosti (CTC)
PRSUB	Problemy i sistemy upravleniya (CTC)
PRTEA	Pribory i tekhnika eksperimenta (CTC)
PSSAB	Physica status solidi (A). Applied Research (GDR)
PSSBB	Physica status solidi (B). Basic Research (GDR)
PZTFD	Zhurnal tekhnicheskoy fiziki. Pis'ma (CTC)
PZTKA	Przeglad telekomunikacyjny
RAELA	Radiotekhnika i elektronika (journal, Moskva)(CTC)
RTKHA	Radiotekhnika (sbornik, Khar'kov)
RVOTB	Referativnyy zhurnal. vozdushnyy transport
RZASA	Referativnyy zhurnal. Astronomiya
RZFZA	Referativnyy zhurnal. Fizika
RZGFA	Referativnyy zhurnal. Geofizika
RZRAB	Referativnyy zhurnal. Radiotekhnika
SAKNA	Akademiya nauk Gruzinskoy SSR. Soobshcheniya
SDTEA	Sdelovaci technica
SLOZA	Slaboproudy obzor
TEOPA	Tekhnologiya i organizatsiya proizvodstva
TKTEA	Tekhnika kino i televideniya
TVKED	Tochnoye vremya i kvantovaya elektronika. Biblioteka AN SSSR. VNII metrologii im Mendeleyeva. Leningrad
TVOOB	Tekhnika i vooruzheniye (CTC)
TVYTA	Teplofizika vysokikh temperatur (CTC)

UFZHA	Ukrainskiy fizicheskiy zhurnal (CTC)
VANSA	Akademiya nauk SSSR. Vestnik (CTC)
VBSFA	Akademiya nauk Belorusskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk
VKPRB	Kiyevskiy politekhnicheskiy institut. Vestnik. Seriya radioelektronika
VLUFB	Leningradskiy universitet. Vestnik. Fizika i khimiya
VMUFA	Moskovskiy universitet. Vestnik. fizika, astronomiya (CTC)
VMUKA	Moskovskiy universitet. Vestnik. Khimiya (CTC)
ZETFA	Zhurnal eksperimental'noy i teoreticheskoy fiziki (CTC)
ZFKHA	Zhurnal fizicheskoy khimii (CTC)
ZFPRA	Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma (CTC)
ZNOKA	Zhurnal neorganicheskoy khimii (CTC)
ZPMFA	Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki (CTC)
ZPSBA	Zhurnal prikladnoy spektroskopii (CTC)
ZTEFA	Zhurnal tekhnicheskoy fiziki (CTC)

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FIANKuy
  Kuybyshevskiy filial Fizicheskogo instituta AN SSSR
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FPI
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GAISh
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  State Astronomical Institute imeni P.K. Shternberg of Moscow State University
GGU
  Gor'kovskiy gos universitet
  Gor'kov State University
GOI
  Gosudarstvennyy opticheskiy institut im Vavilova
  State Optical Institute imeni Vavilov, Leningrad
GosKIAte
  Gos komitet po ispol'zovaniya atomnoy energii SSSR
  State Committee on the Use of Atomic Energy, USSR

Gosstandart
Gosudarstvennyy komitet SSSR po standartam
USSR State Committee on Standards, Moscow
GrodGU
Grodnenskiy gos universitet
Grodno State University
IAE
Institut atomnoy energii im Kurchatova
Institute of Atomic Energy imeni Kurchatov, Moscow
IAESOAN
Institut avtomatiki i elektrometrii SOAN
Institute of Automation and Electronic Measurements, Siberian Branch Academy of Sciences USSR
IBFiz
Institut biologicheskoy fiziki AN SSSR
Institut of Biological Physics, Academy of Sciences USSR, Pushchino
IEANBel
Institut elektroniki AN BSSR
Institute of Electronics, Academy of Sciences Belorussian SSR, Minsk
IED
Institut elektrodinamiki AN UkrSSR
Institute of Electrodynamics, Academy of Sciences Ukrainian SSR
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IFANLi
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Institute of Physics, Academy of Sciences Lithuanian SSR
IFANUk
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Institute of Physics, Academy of Sciences Ukrainian SSR, Kiev
IFI
Institut fizicheskikh issledovaniy AN ArmSSR
Institute of Physics Research, Academy of Sciences Armenian SSR
IFM
Institut fiziki metallov Ural'skogo nauchnogo tsentra AN SSSR
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IFPV
Institut fiziki poluprovodnikov AN LitSSR
Institute of Semiconductor Physics, Siberian Branch Academy of Sciences USSR, Novosibirsk
IFSOAN
Institut fiziki SOAN
Institute of Physics, Siberian Branch Academy of Sciences USSR
IFTT
Institut fiziki tverdogo tela AN SSSR
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IKGr
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IOA
Institut optiki atmosfery SOAN
Institute of Atmospheric Optics, Siberian Branch Academy of Sciences USSR

IOAN
Institut okeanologii AN SSSR
Institute of Oceanography, Academy of Sciences USSR, Moscow

IOF
Institut obshchey fiziki AN SSSR
Institute of General Physics, Academy of Sciences USSR, Moscow

IPANUk
Institut poluprovodnikov AN UkrSSR
Institute of Semiconductors, Academy of Sciences Ukrainian SSR, Kiev

IPF
Institut prikladnoy fiziki AN SSSR
Institute of Applied Physics, Academy of Sciences USSR, Gor'kiy

IPFANM
Institut prikladnoy fiziki AN MSSR
Institute of Applied Physics, Academy of Sciences moldavian SSR, Kishinev

IPM
Institut prikladnoy matematiki AN SSSR
Institute of Applied Mathematics, Academy of Sciences USSR

IPMe
Institut problem mekhaniki AN SSSR
Institute of Problems of Mechanics, Academy of Sciences USSR, Moscow

IPP
Institut problem prochnosti
Institute for Problems of Strength of Materials, Kiev

IPPMM
Institut prikladnykh problem mekhaniki i matematiki AN SSSR
Institute of Applied Problems in Mechanics and Mathematics, Academy of Sciences USSR, L'vov

IRE
Institut radiotekhniki i elektroniki AN SSSR
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IRESOAN
  Institut radiotekhniki i elektroniki SOAN
  Institute of Radio Engineering and Electronics,
    Siberian Branch Academy of Sciences USSR
IRFEANArm
  Institut radiofiziki i elektroniki AN ArmSSR
  Institute of Radiophysics and Electronics, Academy of
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ISAN
  Institut spektroskopii AN SSSR
  Institute of Spectroscopy, Academy of Sciences USSR
ISE
  Institut sil'notochnoy elektroniki SOAN
  Institute of High-Current Electronics, Siberian Branch
    Academy of Sciences USSR, Tomsk
ISMSANGruz
  Institut stroitel'noy mekhaniki i seysmostoykosti
    AN GruzSSR
  Institute of Structural Mechanics and Seismic Stability,
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ITEF
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  Institute of Theoretical and Experimental Physics, Moscow
ITF
  Institut teplofiziki SOAN
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    Sciences USSR, Novosibirsk
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  Institute of Theoretical Physics imeni Landau,
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ITK
  Institut tekhnicheskoy kibernetiki AN BSSR
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ITMO
  Institut teplo- i massoobmena AN BSSR
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KaGU
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KAI
  Kazanskiy aviatsionnyy institut
  Kazan' Aviation Institute
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KGU
  Kiyevskiy gos universitet
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KhAI
  Khar'kovskiy aviatsionnyy institut
  Khar'kov Aviation Institute
KhaPI
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KhFTI
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Leningrad Electric Engineering Institute
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Moscow Aviation Institute
MEI
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MEIS
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MFTI
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Moscow Mining Institute
MGU
Moskovskiy gos universitet
Moscow State University
MIEM
Moskovskiy institut elektronnogo mashinostroyeniya
Moscow Institute of Electronic Machinery
MIFI
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Moscow Engineering Physics Institute

MIIGAiK
Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii
Moscow Institute of Engineers of Geodesy, Aerial Photography and Cartography

Mingeo
Ministerstvo geologii SSSR
USSR Ministry of Geology

MIREA
Moskovskiy institut radiotekhniki, elektroniki i avtomatiki
Moscow Institute of Radio Engineering, Electronics and Automation

MISI
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NIIGAiK
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Novosibirsk Institute for Engineers of Geodesy, Aerial Surveying and Cartography

NIImash
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NIIPFP
NII prikladnykh fizicheskikh problem pri Belorusskom gos universitete
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NIISI
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NIIVN
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NIIYaFT
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  Scientific Research Institute of Nuclear Physics of Tomsk Polytechnic Institute
NIKFI
  NI kinofotoinstitut
  Scientific Research Institute of Motion Pictures and Photography, Moscow
NIOPIK
  NII organicheskikh poluproduktov i krasiteley
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  Scientific Research Center for Industrial Lasers, Academy of Sciences USSR
NPONeftegeofizika
  Nauchno-proizvodstvennoye ob"yedineniye "Neftegeofizika"
  Neftegeofizika Scientific Production Association
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  Saratov State University
SimGU
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  Simferopol State University
StavPI
  Stavropol'skiy politekhnicheskiy institut
  Stavropol' Polytechnic Institute
TbGU
  Tbilisskiy gos universitet
  Tbilisi State University
TGU
  Tomskiy gos universitet
  Tomsk State University
ToPI
  Tomskiy politekhnicheskiy institut
  Tomsk Polytechnic Institute
TsGMI
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  Tselinograd State Medical Institute
TsKBOPANB
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  Central Design Bureau with Trial Production, Academy of Sciences Belorussian SSR
TsNIIatominform
  TsNII informatsii i tekhniko-ekonomicheskikh issledovaniy po atomnoy nauke i tekhnike
  Central Scientific Research Institute of Information and Technical Economic Studies on Atomic Science and Technology, Moscow
TsNIIGAiK
  Tsentral'nyy NII geodezii, aerofotos"yemki i kartografii
  Central Scientific Research Institute of Geodesy, Aerial Photography and Cartography, Moscow
TsNILChGUMinzdrav
  Tsentral'naya NI laboratoriya Chetvertogo glavnogo upravleniya pri Ministerstve zdravookhraneniya SSSR
  Central Scientific Research Laboratory of the Fourth Main Administration at the USSR Ministry of Health
TurkGMI
  Turkmenskiy gos meditsinskiy institut
  Turkmen State Medical Institute

UDN
Universitet druzhby narodov im Lumumby
University of friendship Among Peoples imeni Lumumba, Moscow

UkrIIVKh
Ukrainskiy institut inzhenerov vodnogo khozyaystva
Ukrainian Institute of Water Management Engineers, Rovno

UkrNIINTI
Ukrainskiy NII nauchno-tekhnicheskoy informatsii i tekhniko-ekonomicheskikh issledovaniy Gosplana UkrSSR

UNTsIKh
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Uzhgorod State University

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VISI
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VNIFTRI
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VZISI
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YeFI
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Yerevan Physics Institute

YeGU
Yerevanskiy gos universitet
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